Trains

August
1944

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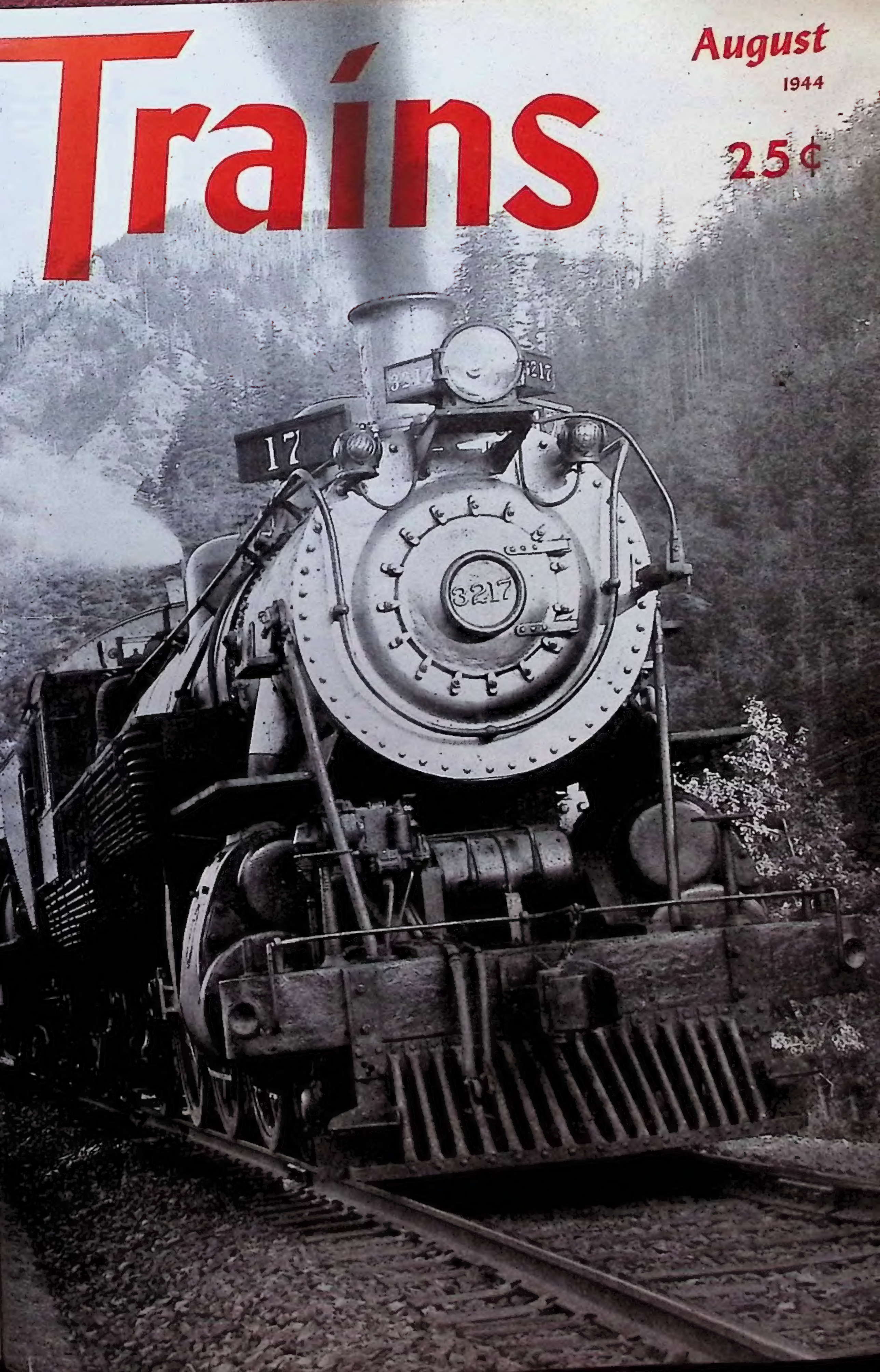

GANGWAY FOR A GOOD SOLDIER!

MAMA has decided that her two young men should meet each other.

And he's off to see his daddy — for the first time!

We may not be able to give them the kind of ride we'd like to. Trains will be crowded. Some coaches may not be as comfortable and convenient as our best equipment. They may have to wait on sidings as troop and munitions trains get the right of way.

But service men and their relatives are good soldiers. They take inconveniences in their stride, understanding that the railroads are doing the best they can to bring them together.

With traffic so heavy, the railroads cannot always maintain all their prewar standards. But they are keeping their dates with convoys, and fighting all the emergencies that go with the world's biggest transportation job. They're working as they have never worked before and are determined to do their level best to help get the job done, and done as speedily as possible.

ASSOCIATION OF
AMERICAN RAILROADS
ALL UNITED FOR VICTORY

LOOKING INTO THE FUTURE

Frisco, while fulfilling present-day transportation needs, is working and planning ahead for the resumption of operations under peacetime conditions. Constant improvements are being made every day to facilitate service now and to be ready for the new era of rail transportation that inevitably will follow Victory.

Frisco serves one of the nation's most progressive territories . . . Frisco has and will keep faith with its territory by meriting its reputation as "A Great Railroad."

5,000 MILES IN 9 STATES

FFF FRISCO FASTER FREIGHT

FRISCO LINES

ST. LOUIS-SAN FRANCISCO RY.

A GREAT RAILROAD IN WAR AND PEACE

Trains

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American railroads produce the world's most efficient common-carrier mass transportation and are the foundation of our country's industrial productivity.

PASSENGERS on the railroads are three times as safe during this war as during the last one, and employees are nearly six times as safe. This was brought out during ceremonies at which the American Museum of Safety awarded to the entire railroad industry a "certificate of special commendation in recognition of its outstanding contribution to the war effort accomplished with due regard to safety." The railroad's current ratio of only 3 passenger fatalities per billion passenger-miles and of 1½ employee fatalities per billion ton-miles was mentioned as belying propaganda which accuses the railroads of inattention to safety.

The Union Pacific, Eastern District, won the Harriman gold medal for 1943 safety record among large systems, the Duluth, Missabe & Iron Range the silver medal for first place among medium-sized systems, and the Charleston & Western Carolina the bronze medal for first place among small roads.

Pennsy 4-6-4-4 Type

The 4-6-4-4 locomotive which has been seen here and there on the Pennsy is pretty much hush-hush, but apparently it is successful, for 25 more have been ordered from company shops, along with seven Texas-type freight engines similar to the 150 built last year.

Traffic Still Increasing

Railroad passenger traffic is showing a 25.5 per cent increase over 1943 record levels and freight traffic is up 6.8 per cent. The O. D. T. is frankly worried about the passenger situation, and points out that at least 20 per cent of all travel is nonessential. Railroads are now authorized to remove passengers from space which they are already occupying in order to make space for wounded military traveling on medical certificates. Pressure continues for travel rationing, but the administrative problem is almost insurmountable. Suggestions to have passengers sign statements that their trips are essential have been ruled out.

Old Dominion Back

After going completely out of the passenger business, the pressure of gas-famished commuters has put Washington & Old Dominion passenger schedules back in the *Official Guide*. If you remember the old W&OD you'll say, "That's a juice line." But now it is Dieselized for freight, and passenger business is handled by gas-electrics. Latest acquisition is one of the cars off the Yonkers Branch of the NYC. The line runs from Rosslyn, just across the Potomac from Washington, to Purcellville, 45 miles west in the foothills of the Blue Ridge. A branch gives freight connection to Potomoc Yard at Alexandria.

Coal Facilities at Charleston

Expecting a large increase in coal tonnage after the war, the Southern is overhauling its coal pier and handling facilities at Charleston. When this work is completed the Southern will be able to handle both cargo and bunker coal through the port of Charleston in any quantity.

Odds and Ends

Narrow-gauge passenger trains again rumble through the Black Canyon of the Gunnison at the west end of the Rio Grande's Marshall Pass route. Because of a highway bridge washout at Sapinero, passenger-train service was restored voluntarily by the railroad to carry people, express, mail and l. c. l. freight between Gunnison and Montrose, 63 miles. . . . Revelle W. Brown has left the presidency of the Lehigh Valley to become president of the Reading, succeeding E. W. Scheer. Felix R. Gerard is the new Lehigh president. . . . The Milwaukee Road is testing the Union carrier-current train-communication system on its Chicago-Minneapolis main line and the Santa Fe is experimenting with radio. . . . A new model of the Mars oscillating headlight which changes from white light to red in event of an emergency brake application is being installed by the North Western on 18 locomotives. Should a train make a sudden stop for any reason, the oscillating red light will warn opposing trains on the other track. . . . The new Tennessee Pass tunnel of the Rio Grande has already progressed 218 feet at the west end.

New York, Ontario & Western has received court permission to completely Dieselize its motive power. This will involve 30 to 40 Diesel units and cost $6,700,000. . . . Northern Pacific is making a 2½-mile change on its main line near Cushing, Minn., which will shorten the route 1000 feet and eliminate 94 degrees of curvature. . . . New York Central has placed two 5400-horsepower Electro-Motive freight Diesels in operation as part of its program of experimenting with various types of motive power under actual operating conditions. An over-all economic study is being made of Diesel, steam and electric motive power for postwar road service. The order for four 6000-horsepower passenger Diesels reported here last month is also a part of this research program. . . . Santa Fe is installing 95 miles of C. T. C. between Melrose and Joffre, N. Mex. . . . Great Northern plans to abandon two miles of its own line into the Duluth passenger station and use trackage rights over NP. . . . The NYC found, in a passenger survey, that by a vote of two to one passengers preferred present train speeds against suggested higher postwar speeds. . . . Plans are being considered for a complete rearrangement of railroad facilities in Mexico City, including a new union passenger terminal.

Railways and Invasion

From March 26, the first day fixed for the movement of troops, until the completion of the initial D-Day movement two months later, British railways ran 24,479 special troop, ammunition and stores

Swiss Industry & Trade.

This Swiss steam locomotive has been converted to use electricity as heating power to raise steam. Cause of this freak is the growing scarcity of coal, which has led the Swiss to electrify additional lines. Additional electric locomotives were built, but not enough for war traffic, and so some steam switchers were fitted with electric heating apparatus.

trains. Not all of these trains were connected with D-Day itself, but of the thousands that were, 1000 carried 230,000 soldiers across Britain, together with 12,000 tons of baggage. The stores and heavy equipment needed 800 special trains and more than 30,000 freight cars. During the three weeks before D-Day the movement of special trains increased, and in one week all wartime records were surpassed with the running of 3636 special trains. The total for three weeks was 9679 trains.

Progress Report

Before the Senate's Kilgore Committee, the A. A. R. recently presented a review of recent railroad progress, emphasizing how much had been done to improve railroad performance between World War I and the present war. The report said that the effectiveness of railroad technical research was shown by results, and listed these important results of the improvements made by American railroads in the last 25 years:

More than doubling the transportation output of the average freight car per day.

Increasing the net load of freight in the average train from less than 700 tons to more than 1000 tons.

Increasing the average speed of freight trains by 50 per cent.

More than doubling the transportation output of the average train, on the road, with an increase from approximately 7000 ton-miles to approximately 17,000 ton-miles per hour.

Abolishing that old bugaboo of commerce, general "car shortage."

Reducing the rate of casualties to passengers, including both killed and injured, by 65 per cent, and the rate of casualties to employees by more than 55 per cent.

Cutting the ratio of loss and damage to freight to one-fifth what it was in 1920.

Reducing the price of railroad service while improving its quality and safety. The average charge for hauling a ton of freight one mile in 1921 was 37 per cent more than in 1943; the average charge for carrying a passenger, 64 per cent more.

All this has been accomplished despite increases in wage rates, in taxes, and in prices for materials and supplies.

The Busy RF&P

The RF&P is continuing with unprecedented traffic on its double-track line, which is the only link between Washington and Richmond. Scheduled passenger trains alone total 45, not allowing for the troop trains. And 17 to 18 cars is the rule rather than the exception. Incidentally, the regular consist of Second 77 (aside from a diner) is about 10 coaches, generally all Erie and CNJ. In addition to their identifying lettering, a small "Leased to RF&P" is in the corner. While leasing of cars is not unheard of, we do believe that for a whole train to be made up of foreign line coaches is unique. The RF&P is awaiting delivery of 10 4-8-4's on order from Baldwin.

Army Saves Cars

Careful planning of troop movements by the army is saving railroad car-miles. The timing of most moves has been made flexible enough so that the departure of troops from a camp can be coordinated with an arrival and the same cars used for both, thus eliminating much deadhead mileage. Furloughs are now arranged, if possible, so that the soldier visits his home while en route from one camp to another, thus saving vital transportation. When a division moves with full impedimenta, 67 mixed and passenger trains are needed, but by swapping heavy equipment instead of moving it, only 35 trains are needed.

A. C. Kalmbach.

August, 1944

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The Show Must Roll

Railroad travel reminiscences of an ex-trouper

BY FRANK ELLISON

"The dash to the station was always interesting."

PICTURE yourself riding on a careening truck behind a team of galloping mules through the streets of a city at midnight, seated like grotesque royalty on a throne of theatrical trunks and crates, removing grease paint with handfuls of cold cream and, at the same time, performing a dexterous, though partial, disrobing act—all to the gaping amazement of the citizenry!

Sounds like the pay-off of one of those eccentric election bets, doesn't it? But it isn't. It was the traditional manner in which Mary and I left St. Louis during the old vaudeville days 25 years ago—the first step toward catching a train for the next stand. This impromptu parade reached from a theater stage door to the old Union Station baggage room, there to be greeted by a crew of baggage handlers who trundled our motley paraphernalia—15 to 40 pieces of baggage—aboard a waiting train.

And though perched in pseudo royalty, we had a tingling kingly authority, nonetheless, in holding a long, important express train with its load of passengers and head-end business until we two youngsters gave the conductor permission to highball!

Mary would go directly to her Pullman section or drawing room to complete the removal of her stage wardrobe while I stood by the baggage-car door, checking in each piece of baggage; then, with a nonchalant toss of the hand to the conductor, I would say, "Okay, buddy, let's ride!" and step aboard. Kingly? Well, rawther!

Yes, we held trains—many times and all over the country, but in St. Louis more than anywhere else. Nearly every night train left that city a half-hour before midnight and though we played there dozens of times, we never left it without having to hold a train with its payload of restless passengers upwards of 45 minutes or an hour.

It seems fantastic in this day of speed and "on-time" scheduling, but a generation ago, when vaudeville and we were young, there were no good roads, no motor cars, no buses, no airplanes; and 8000 to 10,000 vaudeville artists regularly traveled by overnight trains from city to city each weekend—from "after the show" time till arrival the next morning for 11 o'clock rehearsal—a jump of usually several hundred miles. Obviously, baggage had to travel intact and on the same trains with us, and split-second timing was often necessary.

This presented no difficulties to acts traveling light, for the "suitcase act" had merely to walk off the stage after his last performance, pick up his bag en route to a waiting cab, and board his train 10 or 15 minutes later. But the "production act," carrying elaborate and special stage equipment—scenery, electrical effects, properties, musical instruments and costumes, all of which had to be packed, loaded on trucks, hauled to the station, weighed for excess baggage charges, checked, loaded to platform trucks, wheeled to the baggage car and loaded aboard the train—required time and the friendly disposition of the railroads to hold a train when necessary.

We were a "production act." Mary and I

regularly headed up a musical turn of our own —some seasons, just we two, other years with a supporting troupe. Our baggage, depending upon the production and the season, ran from 15 to 40 or more separate items, all painted bright sky-blue with bands of white, conspicuous enough to be recognized quickly and grouped by ourselves and baggagemen when time was short.

To say that in 15 years and 300,000 miles of trouping we never missed a performance is paying the railroads the highest compliment I can think of, for we rode 'em all, brother; we rode 'em all—in Pullman or coach; Class 1, short lines, branches, feeders, interurbans, standard gauge and narrow; one memorable occasion on a sawmill road, standing on a flat car behind a wood-burning Shay, picking splinters and cinders from each other; another time in a "crummy" with the baggage up ahead in a side-door Pullman. But to say that there were no close shaves would be glossing over some of the excitement of an intensely active way of life.

There was the day back in 1910 when we were making the jump from Fort Smith, Ark., to Nashville, Tenn.—655 miles via the St. Louis & San Francisco Railway to St. Louis, then via Nashville, Chattanooga & St. Louis Railway to destination. With 30 minutes' leeway at St. Louis for the interchange, we were sure the connection would be made with time to spare.

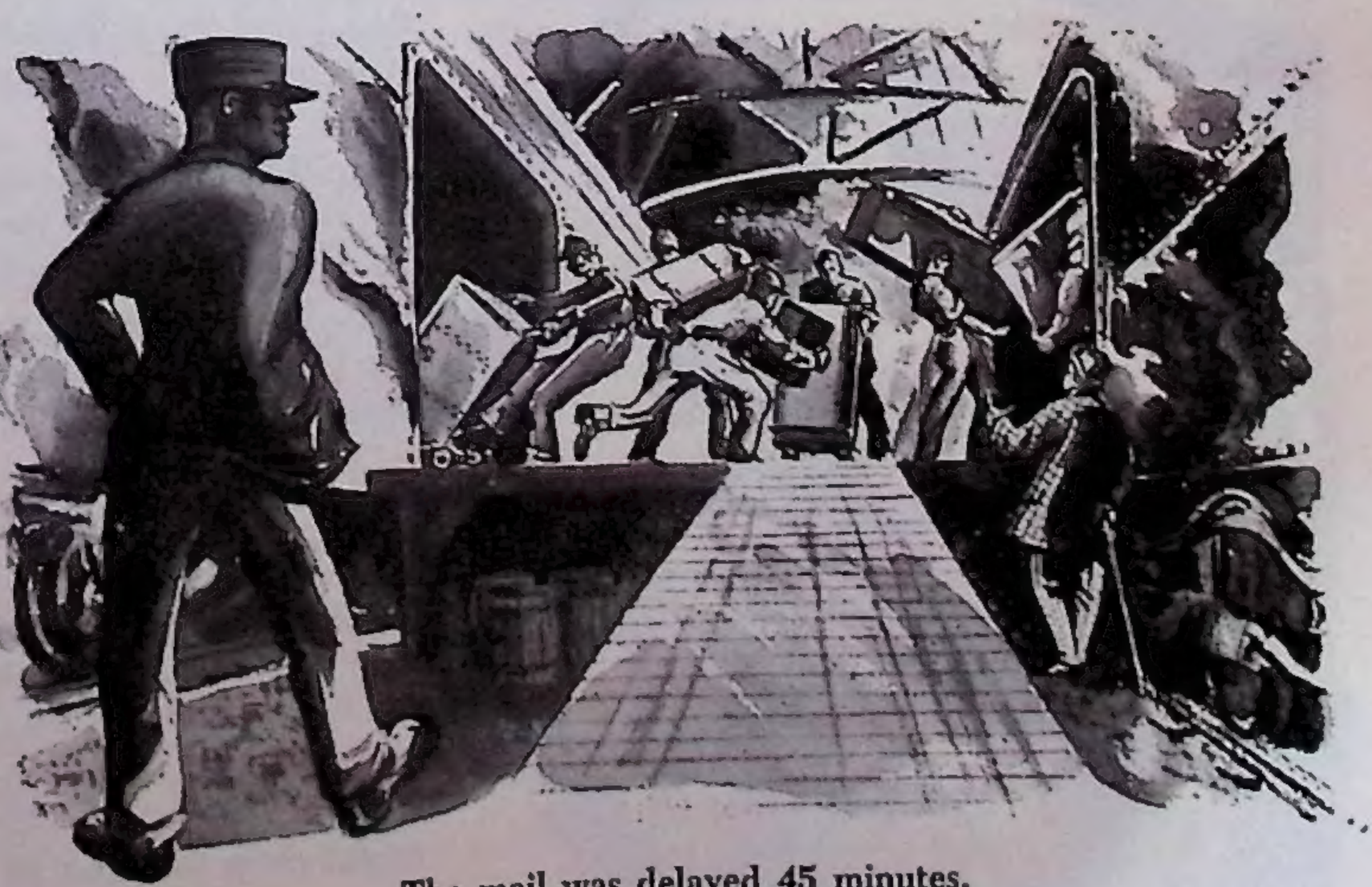
But things are not always what they seem.

All that Sunday, the Frisco lost time and more time, and it became evident that we were going to miss our connection in St. Louis. The upshot of it was that the Frisco conductor and I worked out a wire to the station agent at the St. Louis Union Station, asking that the second train be held for a large theatrical party. Unusual? Not in those days. Theatrical business was big business for the rails then, and cooperation was the order of the day. The station agent, who turned out to be as rotund as the dome of the Capitol at Washington and as good natured as he was fat, did a noble job of persuasion with the Nashville, Chattanooga & St. Louis people and they consented to hold the train, a fast mail.

Our entry into St. Louis an hour late was as dramatic as any stage performance. A route had been set up over approach and wye tracks to bring the two trains together in the station. Our Frisco wheeled across the foreleg of the wye, stopped, and backed into the twilight gloom of the train shed where a dozen baggage handlers and a small fleet of platform trucks were waiting for us. The wheels were still rolling when crates, boxes, bags, trunks, and an assortment of spotlight stands began to spew out of baggage-car door to the uplifted hands of the baggagemen. Instantly, the struggling mass of humanity was sweating from fast and earnest work. Across the platform stood the new conductor, understandably impatient, glowering at me, at Mary, the troupe, the baggage, muttering to himself, no doubt, a curse on all actors with excess baggage.

The platform was a scene of intense action. Baggage of all shapes and sizes was moving in a procession across the area. Everything was going like clockwork when the hitch in a good performance came like the sudden pain of a yanked-out tooth. The road engine, having uncoupled, chuffed quietly out to the locomotive terminal. The depot switcher nudged in unnoticed, coupled up, and in the midst of that barrage of baggage, pulled the baggage cars out of the shed, around the wye and off for parts remote—like an over-zealous waiter who snatches a plate of food from beneath the hands of a hungry man!

The new conductor and I, recovering from the shock of the unexpected, entered into a debate as to whether the train could be held



The mail was delayed 45 minutes.

until someone chased after that switcher and brought the cars back. He was adamant: "I'm carrying United States mail, young fella."

"Aw, have a heart, conductor," I pleaded. "If we miss this train, we miss the date in Nashville."

"Can't help that. I've never been so late with this train. We're highballin'." he said with finality.

"But, gosh, friend, that means we lose dough."

"Listen, mister," he came back with emphasis. "I wouldn't hold this train another second. No, sir, not even for the President of the United States! Now git aboard or stay on the platform," he said, and started to raise his hand for the highball.

"Hold on a minute there, conductor. It looks like we're not only going to miss the Nashville date and the money from that week's work, but run the chance of having the whole route cancelled as well. That's important money. If you pull out now after agreeing to wait, I intend to hold this road responsible for the loss."

Whether the bluff would have worked or not, I don't know, but, believe it or not, the engineer of the switcher must have had a telepathic flash of the situation, for those baggage cars came wheeling back around the wye and stopped with the doors again lined up opposite those of the Nashville, Chattanooga & St. Louis car. All argument was suspended while the baggage boys whooped and enthusiatically attacked the innards of the Frisco car, tossing the rest of our baggage across the platform.

As the red eye turned to green and the locomotive was spreading its first vibrant swishes of white steam across the tracks, I tossed a bill to the boys, told them to have a feed on me—and climbed aboard.

TRAINS didn't always wait. Another time on a sultry summer Sunday afternoon on the Tulsa station platform, musician had to turn combination strong man-acrobat-sprinter. Standing as usual near the baggage car, I was checking in the baggage as it was loaded. When all but the last few pieces were aboard, the baggageman said, "Climb on. I'll get it all on for you." So I boarded the train at the first open vestibule near the head end.

The conductor, however, seeing me board the train, thought that everything was loaded, signaled the engineer, climbed aboard, and the train began to move. Sensing that something was wrong, I leaned out of my door just as we passed the platform truck and, sure enough, there was one last small canvas bag—small, but heavy with important iron parts—remaining on the truck, and the handler standing there helplessly with his hand raised in a gesture that said, "Well, I tried, but the con didn't wait."

There was nothing else to do but drop off the moving train and try to get that bag aboard. "Throw it in the first open door," I pleaded to the fellow.

"Not me! I might hit a passenger," he said. "Better get back on, I'll get the bag on the next train sure."

"That bag travels with me," I said with meaning. "Can't put on a show without it. I might just as well stay in Tulsa as leave the bag here," forgetting that Mary was on the moving train, that I had the tickets and that the wheels were clucking an ever faster cadence over the rail joints.

I picked up the heavy bag and looked for an open door, but by now they were all closed. That train was all set for its run to the next stop. I could draw a mental picture of the hogger feeding more and more steam to the cylinders and the conductor starting up the aisle collecting tickets. The situation now was even worse than it was before, as not only the baggage but a vaudeville performer was going to be left in Tulsa. The coaches and most of the Pullmans had passed when, by jeeps, I spotted the brass railing of an old open-end observation car platform. The baggageman sensed my intention and yelled, "Hey! No, you don't! You might drop that bag in the lap of a passenger."

The suitcase act can make his train in 15 minutes.

She said, "Some of these days you'll miss a train!"

He reached out to grab my arm, but the bag was sailing over the railing. It crashed with a terrific thud and clatter on the platform floor. A woman screamed, but I had no time for sober reflection of consequences. The train was rapidly going away from there and I was still in Tulsa! I took out after it and did the fastest 50-yard dash on record, or so it seemed to me. Train and runner were now in a dead heat with the betting odds on the train. At the end of the platform, I reached out and hooked my fingers around a grab iron, the train swung me around, my foot reached the coupler, and I swung up and over the railing.

There was a terrified but unhurt lady huddled in a corner, a group of surprised traveling salesmen and oil men standing in the salon, and the rear brakeman was reaching for the train cord preparatory to tossing a lunatic overboard. All I could think of by way of explaining the undignified situation was to growl at the brakie, "Well, why'n'hell didn't this damned train wait for my baggage?" and march off in a huff through the train with the bag of iron parts.

Mary was sitting quietly in her seat with some knitting, wholly unaware of all the excitement and hullabaloo, as I clanked the bundle of iron down beside her seat. Looking up and seeing her mate still in a wild state of excitement, clothing awry, hair rumpled and *sans* hat, she observed, "Well! Where have *you* been, and why did you bring that filthy bag in here? You look a mess. Some of these days you're going to miss a train."

All I could say was "Uh huh" and start digging around in the bag for a clean shirt.

Montreal's Railroads

Railscape of Canada's metropolis features seven railroads, two big terminals, electrification, locomotive works, plenty of trains

BY W. A. B. DAVIDSON

RAILROADS entering the Montreal area provide unusual interest for the railfan because of their international character. Probably no other city has a wider diversification of railroads from two countries. Here seven Canadian and United States railroads meet in friendly and profitable interchange. They are naturally dominated by equipment of the Canadian Pacific and Canadian National, but here also, in Canada's leading metropolis, with a population of well over a million inhabitants, is equipment of such well-known United States railroads as the Delaware & Hudson, New York Central, Central Vermont, Rutland and Boston & Maine. Besides these are the electrical suburban Montreal & Southern Counties line and the city-owned steam railroad operated by the National Harbours Board for Montreal Harbor.

Montreal is Canada's center of railroad activity. It is a hub in the Canadian railroad world from which spokes radiate to the four points of the compass. It is the home of the head offices for both the Canadian Pacific and the Canadian National, which, by the way, are the two leading railroads in North America in point of number of miles of first track, followed closely by the Southern Pacific and the Santa Fe. Montreal houses great locomotive and car shops for both of the Canadian systems. Here, too, is the Montreal Locomotive Works. The city is closely identified with early railway lore and has been the scene for many a red-letter day in Canadian and United States railroad annals of history.

Concentrated within a few blocks one has a wide choice of passenger equipment of varied and interesting nature. All day long at Windsor Station the highly polished, conservatively built Canadian Pacific locomotives come and go, their tuscan-red trimmings matching the well-known red of all CP coaches. Here in the same station are the continental-looking and highly efficient Delaware & Hudson 4-6-2's, an examination of which is a field day in the life of any railfan. On a nearby track a standard New York Central 4-6-2 grinds to a stop, gray and dirty from an overnight run from Utica with Pullmans from Buffalo. These engines, not unnaturally, bear a marked resemblance to the 500-class Pacifics of the Boston & Albany. Here also are the light 4-6-2's of the Boston & Maine, hauling the Montreal-Boston express with the euphonious title of *Redwing*.

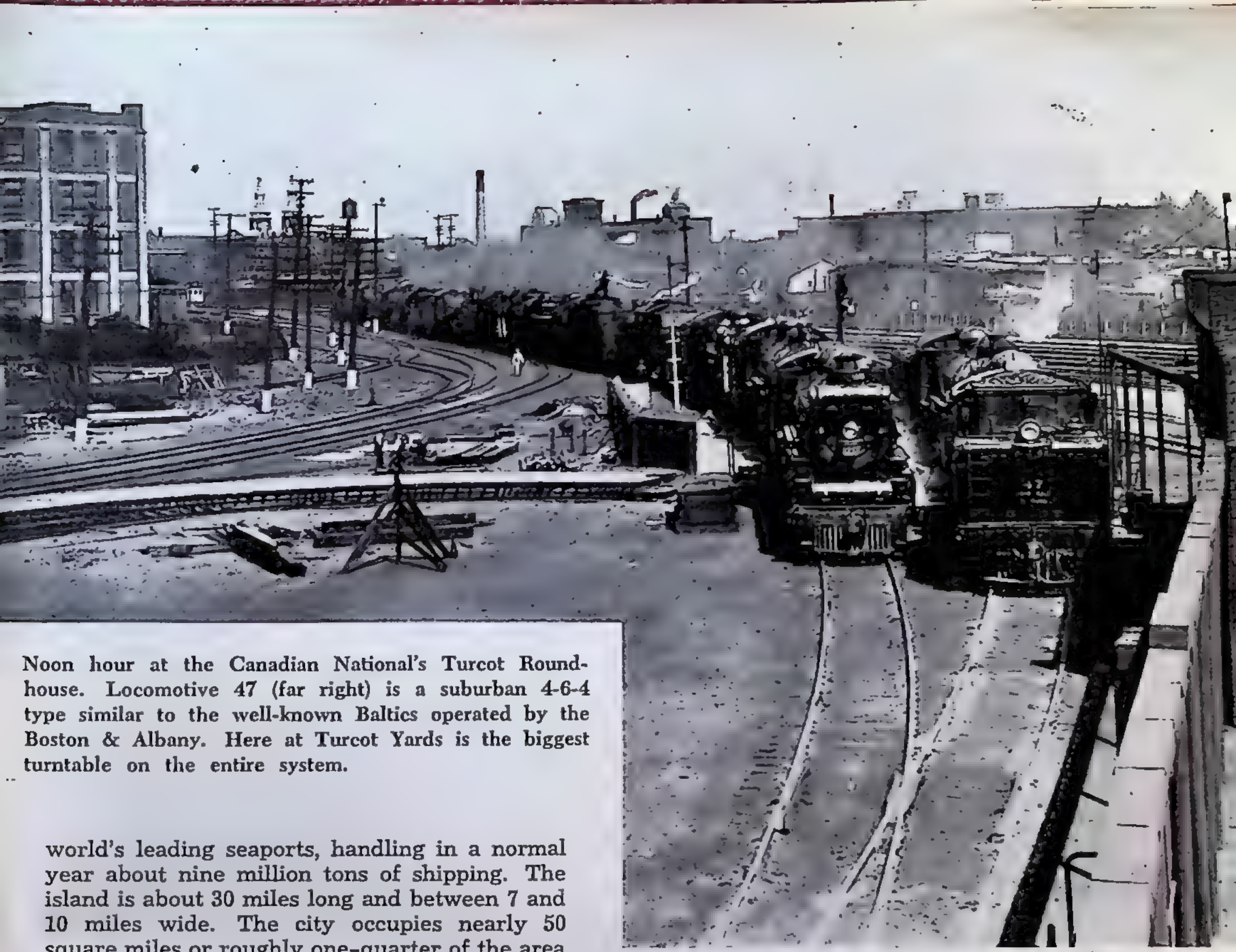
Before the replacement of Bonaventure Station, all types of Canadian National passenger power from the latest 4-8-4 giants to a humble and ancient 2-6-0 could be seen there. Mountains, Pacifics and Ten-Wheelers of the Central Vermont came and went, and neat Pacifics and Ten-Wheelers of the Rutland hauled day and night trains up from the Lake Champlain country and the Green Mountains to terminate at Bonaventure Station. Now, however, all these trains, behind electric locomotives, make use of the Canadian National's new Central Terminal, opened July 14, 1943, while Bonaventure is used only for special movements, troop trains, and limited suburban service.

Of course there are other haunts to be visited: a trip to the harbor to watch the sturdy switchers at work, or over to the Canadian Pacific's Place Viger terminal to see CP's lightweight 4-4-4's. To top these excursions are trips to the great freight and passenger yards of the city.

Montreal is situated on an island in the St. Lawrence River and, although located about a thousand miles from the ocean, it is one of the

Booklet about test train

The American Steel Foundries, 410 N. Michigan Avenue, Chicago 11, Ill., has prepared a booklet describing its test train. It is an interesting account of high-speed freight-truck tests, and will be sent free to any TRAINS reader who asks for it.



Noon hour at the Canadian National's Turcot Roundhouse. Locomotive 47 (far right) is a suburban 4-6-4 type similar to the well-known Baltics operated by the Boston & Albany. Here at Turcot Yards is the biggest turntable on the entire system.

Canadian National.

world's leading seaports, handling in a normal year about nine million tons of shipping. The island is about 30 miles long and between 7 and 10 miles wide. The city occupies nearly 50 square miles or roughly one-quarter of the area of the island.

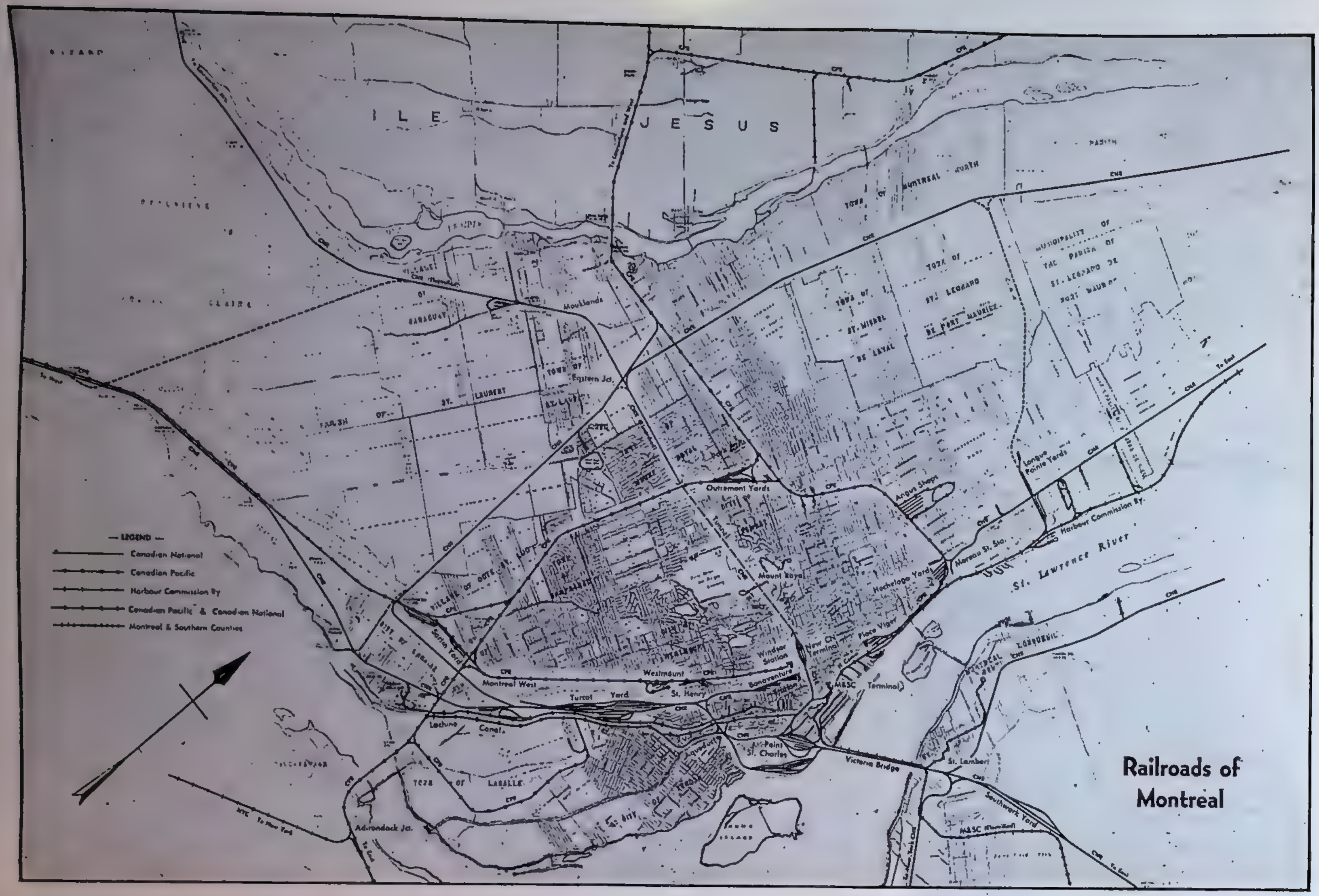
Located at the head of ocean shipping, the city is a natural rail center. While the very largest ocean-going vessels are unable to come up the river as far as Montreal, a large percentage of ships do unload their cargoes with the aid of modern facilities at the Montreal docks. The harbor is open about 7½ months a year and during the balance of the year, when the harbor is inaccessible because of ice, the railways are burdened with extra freight headed for the Atlantic ports at a period when railroad operation in Canada is anything but easy.

The island has as its central feature what is affectionately referred to by citizens as "the mountain," although it is only 760 feet high. However, this central elevation has forced growth of the city largely in an east-and-west direction and has played a decisive role in determining rail approaches to the central part of the city.

Bridges provide all rail entrances to the island, the oldest and most famous of them being the Victoria Bridge of the Canadian National, over which trains operate from the Quebec southern counties and the Atlantic Seaboard. A little farther upstream, to the west, is the modern high-level bridge of the Canadian Pacific, serving the same areas. Both lines own bridges at the west end of the island, carrying trains to and from Toronto, Chicago and the Far West, as well as bridges at the north end of the island. The CN also has a bridge at the east end carrying Quebec City-bound trains and also those making connections for travel to the West via the old Canadian Northern route. In addition, numerous swing bridges span the Lachine Canal. Unlike Manhattan, the island has no underwater tunnel approach.

Canadian railroad history is closely identified with Montreal. The first railroad in Canada, the Champlain & St. Lawrence Railway, started operations in July, 1836, on the south shore of the St. Lawrence River directly opposite Montreal, and ran for 15 miles to St. Johns, Que., where passengers could connect for New York City by a combination of boat and rail accommodations. As in the case of most early lines, track consisted of strap iron on wood strips. The first locomotive was 13 feet long, a striking contrast to the huge Canadian National dual-purpose 4-8-4's now operating in the same region.

It wasn't until 1851 that another railroad was built in the district. This was the optimistically


ILE JESUS
— LEGEND —
Canadian National
Canadian Pacific
Harbour Commission Ry
Canadian Pacific & Canadian National
Montreal & Southern Counties
Mouklands
Outremont Yards
Angus Shops
Longue Pointe Yards
Harbour Commission Ry.
St. Lawrence River
Mount Royal
Hochelaga Yards
Place Viger
New CN Terminal
Windsor Station
Bonaventure Station
M&SC Terminal
Westmount
St. Henry
Turcot Yard
Montreal West
Lachine Canal
Point St. Charles
Victoria Bridge
St. Lambert
Southwark Yard
Adirondack Jct.
Saint Yard
Town of Laval
Town of Montreal North
Town of St. Leonard de Port Maurice
Town of St. Michel de Laval
Municipality of the Parish of St. Leonard de Port Maurice
Town of Lasalle
Town of Saint Laurent
Town of Eastern Jct.
Parish of Saint Laurent
Parish of Saint Michel
Parish of Saint Leonard
Parish of Saint Pierre
Parish of Saint Jean
Parish of Saint Gabriel
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Parish of Saint Ignace
Parish of Saint Paul
Parish of Saint Cunegonde

named Atlantic & St. Lawrence, which also ran from the south shore of the river, again opposite Montreal, and extended to Richmond, Que. It did eventually reach the ocean, forming the basis for the present Canadian National route to Portland, Me.

In 1855 the Grand Trunk (Canadian National) provided rail connection to Brockville, Ont., and in 1856 the line was completed to Toronto. Then followed numerous rail connections to the North, South, East and West during the period of rapid railroad development.

In the early days the Grand Trunk erected extensive shop facilities in the Point St. Charles district of the city—facilities which, while very much enlarged and modernized, are still in service today as an integral part of the Canadian National car and locomotive shop setup. Claim to early fame for these shops goes as far back as 1860, when a royal train, complete with locomotive, was built here for the Prince of Wales during his tour of the country.

Victoria Bridge, which has been carrying trains across the St. Lawrence River for 84 years, was conceived at a time when knowledge of engineering was limited and the use of structural steel was in its infancy. The feat is still regarded as one of the world's engineering triumphs. Construction of the bridge, 9184 feet long including abutments, started in 1850 and the first train passed over it in December, 1859. In those days the St. Lawrence had a flood level of 25 feet above its normal surface, and the idea of throwing a bridge over this mile and a half of water where a torrent of ice rushed down every spring seemed an impossible dream. It is a tribute to the engineers that the original stone piers are still standing. These piers, each 92 feet long at the base, are constructed with a cutting edge facing upstream to cope with the ice.

The original bridge consisted of a series of 25 boiler-plate tubes fitted together to form a tunnel-like structure through which passed a single track. This design was to protect the track and trains from snow and ice. The Grand Trunk owned it outright, paying the full seven million dollars for its construction. Thus a direct rail link was formed with the center of the city and the industrial and population areas of the Eastern Seaboard.

About 1900, the boiler-plate rectangular tubes were removed and the present structural steel of conventional appearance took their place. Increasing traffic necessitated double-tracking the structure. The bridge now also provides automobile and pedestrian facilities.

Windsor Station, housing the main offices of the Canadian Pacific, is the heart and pulse of what is often referred to as "the world's greatest travel system." The building is constructed of huge stone blocks, as firmly and permanently established as is the CPR itself in the development and prosperity of Canada. The Canadian Pacific, incidentally, is privately owned and operates in direct competition with the government-operated Canadian National.

Architectural features of Windsor Station are not common to most railroad stations and terminals, and in many ways it resembles a huge medieval castle. It was opened to traffic in 1889 to provide a direct entrance from the west and is located on Windsor Street in the heart of the downtown area, half-way up an incline at the bottom of which lies the ancient Bonaventure Station of the Canadian National. Windsor Station has a conventional stub-type layout with 11 tracks. In addition to CP trains, these carry New York Central, Boston & Maine and Delaware & Hudson trains. The tracks narrow down at the throat, which is controlled by an interlocking system of modern design, to three main tracks and bear west on a high embankment up a slight grade for two miles to Westmount Station, where extensive passenger-coach yard facilities and roundhouse are provided. The line then proceeds high above industrial Montreal, looks down on the sprawling Turcot Yards of the Canadian National and the vast reaches of the St. Lawrence, and after covering 2.7 miles arrives at Montreal West, where another interlocking tower is located.

Here, broadly speaking, trains for Ottawa, Toronto and the West head right through Montreal West and continue for 15 miles on double track through a dozen suburban settlements until St. Annes is reached, at which point the island of Montreal is left behind. On the other hand, trains of the New York Central, Delaware & Hudson, Boston & Maine, and CP trains headed for the Maritimes, bear to the south down a double-track incline and take a wide sweep, crossing high above the Canadian National main line to points west, through the Town of LaSalle and eventually over the St. Lawrence River.

The stretch of track between Windsor Station and Montreal West is quite busy, handling, on the average, about 72 regularly scheduled trains per day. Added to this traffic are the empty train movements between the Westmount coach yards and roundhouse and the terminal. All passenger trains for Windsor Station are made up in the Westmount Yards and run down the two-mile stretch into the terminal, usually powered by 2-8-0's, sometimes by the odd 0-8-0 and sometimes by the road engine itself.

All trains backing out of the terminal are turned on a loop in the Westmount Yards before the road engine is uncoupled. These yards are complete in every detail for servicing and

Canadian National.

Carroll E. Salt, 4134 Old Orchard Ave., Montreal, Que.

cleaning, and include a large roundhouse with all locomotive terminal facilities.

The interior arrangement of Windsor Station follows the conventional with the usual high-roofed concourse and waiting room with ticket offices and checking facilities. Offices, including those of D. C. Coleman, president of the Canadian Pacific, are located on the second floor.

Nowadays the concourse very often resembles a military barracks as soldiers, sailors, airmen, and women in uniform go "on parade" before boarding their train or after detraining. It might be said that the bark of the toughened sergeant-major is as familiar to the public as the voice of the train announcer.

Traffic into Windsor Station since the war started has reached record proportions, but efficient coordinated effort handles the volume with a minimum of delay and a maximum of dispatch. Recently the interior seating arrangement in the main waiting room was rearranged to handle the large number of customers (and those who just drop in to rest and keep warm, familiar to

The Mountain-type 6048, top left, heads a typical Canadian National train at Bonaventure Station, now used only by military and some suburban movements. This locomotive is equipped with a dustlaying device on the tender, used when the train enters a station. The Royal Scot is shown at Windsor Station 11 years ago. Lightweight CP 4-4-4 below is on a Quebec City train about to leave Place Viger Station.

Canadian Pacific

every railroad station) more expeditiously. A modern public address system has been installed, primarily for improvement in train announcing and for informing the public as to last-minute changes in train arrivals and departures. It is also employed for important personal calls, for paging, for locating lost children, and for addresses during special events in the station concourse, and can also be used as air-raid warning system in an emergency. All told, 65 loudspeakers are distributed throughout the station.

All types of trains enter Windsor Station, from the great transcontinentals, weary and grimy after a trip of 2880 miles from the Pacific Ocean, to the trim and still fresh-looking suburbans that have come barely 25 miles. The railfan, browsing around the end of the train shed, thrilling to the familiar smell of hot grease and burning oil, can watch the trains coasting down the slight grade into Windsor Station, with the sun catching the flashing side rods of the locomotives and making them appear to be traveling much faster than they really are as they twist and turn through the switches, finally nosing into their allotted terminal track.

Like all big terminals, there is the usual morning rush of overnight arrivals and morning departures. Traffic eases off after the Delaware & Hudson's *Laurentian* departs at 10:15 a. m., then picks up again at 3 p. m. with the departure of the CP-CN pool train to Toronto and keeps active until 11 p. m., when the *Chicago Express* glides out into the murky darkness amid myriad blinking signal lights, followed at 11:45 p. m. by the departure of a Quebec City-bound train. It is a source of dissatisfaction to me that Canadian roads do not employ more widespread use of rear-end illuminated train signs, for this adds something to the peculiar fascination of an evening departure of a limited train with lounge and observation cars gayly lighted.

Among the more interesting trains at Windsor Station are the pool trains, operated jointly by the Canadian Pacific and Canadian National between Montreal and Toronto and between Montreal and Quebec City. In 1934, due to intense competition between the two roads, extravagant expenditures had been incurred, and this duplication of service and effort with increased competition from motor vehicles was proving disastrous to the railroads. Machinery was therefore provided for cooperation between the two systems for the elimination of duplicate services and facilities. When the pool service was started, dyed-in-the-wool railfans were startled to see locomotives of the Canadian National backing into Windsor Station to couple onto a shining red baggage car of the Canadian Pacific.

Perhaps the best known of these pool trains are No. 15, the *International Limited*, and No. 6, the *Inter-City Limited*, providing fast afternoon and evening service between Montreal and Toronto. No. 15 leaves from Windsor Station, usually hauled by one of the Canadian National's 5700-series Hudsons. The consist includes coaches and chair cars of both roads, making a colorful picture: Pullman green of the CN combined with the tuscan red of the CP. The five 5700's (Class K-5a) were built in 1929 and are very neat and compact units. They make about 150 round trips yearly for a total of 50,000 miles. They are painted green with gold striping and the number appears midway along the running board, set off in gold against a vermilion background. Wheel rims are white.

Canadian National.

Electrically operated through passenger train leaving the new Canadian National station, known as Central Terminal. The terminal building is the low modern structure above the tracks in the background.

Since February, 1943, all parlor-car service on trains of both railways operating between Montreal and Toronto and between Montreal and Ottawa has been discontinued. This has enabled the railways to place more coaches in service and, because the coaches have a larger seating capacity than parlor cars, their increased use has reduced the number of extra train sections.

Pool trains for Toronto operate over tracks of the Canadian National between Dorval, Que., and the trackage of the Toronto Terminals. Thus pool trains leaving Windsor Station run over Canadian Pacific tracks for about 10 miles to Dorval and then cross over to the main line of the Canadian National.

The Canadian Pacific provides considerable morning and evening rush-hour suburban service to and from a dozen or more settlements in a beautiful district along the St. Lawrence River known as "The Lakeshore." Wooden coaches with steel underframes are used almost exclusively on these trains, and 2500- and 2600-class light Pacifics with low drivers are employed. This suburban service, however, does not reach in any manner the magnitude of traffic handled by the railroad into such centers as New York, Chicago or Philadelphia.

Four transcontinental trains make their daily appearance in Windsor Station. They are Nos. 1 and 2, and 7 and 8. All trains carry a full complement of coaches and Pullmans for various points right across Canada. Total distance traveled to Vancouver, B. C., is 2881 miles; time consumed is 88 hours 5 minutes for the westward trip and 83 hours 5 minutes for the eastward journey. The most commonly used locomotives on these transcontinental hauls are the road's well-known semi-streamlined Hudsons in the 2821 and 2850 series. These engines are good workers and some have been known to run up totals of 19,053 miles in one month, or a six-month average of 17,179 miles per month. Pretty good going for any locomotive!

All Quebec City-bound trains from Windsor Station are run as pool trains in conjunction with the Canadian National. In this case, tracks and motive power of the CP are utilized, while coaches are pretty well divided between the two roads. Power is generally furnished by a 2850-series Hudson. Trains travel west out of Windsor Station to Montreal West, where they leave the main line to Toronto and travel in a wide curve in the northern section of the city, past the CP's Outremont freight yards and roundhouse facilities, into Park Avenue Station. A short distance after leaving Park Avenue the trains branch off to the east and head onto the main line to Quebec City. In this case, trains leave in a westerly direction but their final destination is in exactly the opposite direction.

The Canadian Pacific operates two lines between Montreal and Ottawa, the "South Shore" and the "North Shore," simply referring to opposite sides of the Ottawa River. The South Shore is the shorter and faster route and is used by the transcontinental trains as well as fast dailies operating between Ottawa and Windsor Station. The North Shore equipment is not quite so elaborate as that used on the South Shore, but now some of the CP's very latest motive power is being used on this run. It is the new semi-streamlined Pacifics of the 2378-2417 series, the last of which were delivered in February, 1943. These locomotives are most attractive in design and weigh 275 tons with tender. They were built by the Canadian Locomotive Works at Kingston, Ont., for dual service and for that reason do not have extremely high drivers.

Trains operating via the South Shore route head right through Montreal West to Vaudreuil, Que., where a direct route to Ottawa leaves the main line to Toronto. Trains operating via the North Shore travel the wide northern circle through Park Avenue Station, where a route to Ottawa is provided a few miles to the north.

Considerable vacation traffic is carried to the North Country and the Laurentian Mountains, known the world over for ideal skiing terrain. Because of long grades and difficult curves, these trains, especially in winter, are handled by 2-8-2's in the 5100 series. Trains bound for the Laurentians circle the city and pass through Park Avenue Station, then continue in a northwesterly direction.

Since the advent of pool service between Montreal and Toronto, trains for Toronto do not leave Windsor Station with the same frequency as in former years. A train leaves every morning for Toronto, operating via Peterborough, Ont., with an opposite number arriving from Toronto at night via the same route.

The Canadian Pacific owns only two 4-8-4's, and these, numbered 3100 and 3101, operate on the night trains between Montreal and Toronto: No. 21, the *Chicago Express,* and No. 22, the *Overseas.* These locomotives pile up a tremendous mileage. They are gracefully designed and have the appearance of a "real" locomotive doing a he-man job.

Many other trains operate in and out of Windsor Station, but they are too numerous to mention in detail. The vast majority are handled by light and heavy Pacifics and Hudsons.

Bonaventure Station, now almost completely abandoned, has a history dating back to 1847, when it was formally opened as the city's first railroad depot for the Montreal & Lachine Railroad, which was about nine miles long and had a 4′-9″ gauge. The stations's claim to fame is in vintage and certainly not beauty. While it ranks as one of the country's old depots along with famous old structures like the B&O's Camden Station, it is architecturally nondescript, rambling, and did not create a favorable impression on travelers arriving in Canada's metropolis for the first time. The new Central Terminal is modern and electrified.

Soon after its erection the Grand Trunk obtained control of the line running into Bonaventure Station, but the Grand Trunk did not immediately make it into a main terminal because GT tracks were laid to the wide 5′-6″ gauge. For some years a passenger shed at Point St. Charles served the Grand Trunk; then, in 1864, it was decided to enlarge and perma-

Canadian National.

Light Pacific No. 5575 of the Canadian National steps away from Vaudreuil, Que., with a local from Montreal. Near this point, trains leave the Island of Montreal, crossing the Ottawa River at St. Annes. At far right is the CP main line to Ottawa, Toronto and Chicago.

nently establish Bonaventure as the Grand Trunk's main terminal in Montreal. It is interesting to note that the enlargement and modernization work was in charge of General Sherman's brother. Freight sheds were erected and a third rail laid to accommodate the wide gauge. In 1873 the entire terminal was converted to standard gauge.

Opening of the Canadian Pacific's modern Windsor Station in 1889, just a few blocks up the hill on Windsor Street, forced the Grand Trunk to rebuild Bonaventure Station. More than a quarter million dollars was spent on rehabilitation. A great fire destroyed part of the building in 1916, and after reconstruction the depot assumed its present characteristics. Location of these two depots in what was then

termed "the western part" of Montreal was a decisive factor in developing the city westward. The new Central Terminal is only a few blocks away from Bonaventure. Central Terminal has 17 electrified tracks, 14 of which are actively used in passenger service. Two are used for special events, storage, etc., and one is reserved for mail and express.

Leaving Bonaventure Station the tracks proceed for 1½ miles westward to St. Henry, through a congested area of housing and industry and crossing several of the city's main streets at grade. Some of the suburban traffic is handled by 4-6-4 double-ender Baltic-type locomotives, which are capable of providing rapid acceleration and, of course, can be operated in either direction without the necessity of turning.

With the advent of the new Central Terminal, all important Montreal trains of the Canadian National, Central Vermont and Rutland railroads no longer use Bonaventure, but take advantage of the new, modern facilities. This new terminal, described in detail in the November 1943 TRAINS, is completely electrified and is operated with electric locomotives of box-cab design.

Central Terminal does a rushing business from early morning until around 9:45 a. m., when the Rutland's *Green Mountain Flyer* departs for Boston and New York. From then on traffic eases off considerably until around 5 p. m., then continues heavy until 11:30 p. m. Morning arrivals include two trains from Toronto, one of them the pool train *Maple Leaf*, the *Ocean Limited* and the *Scotian* from Halifax, N. S., the *Continental Limited* from Vancouver, B. C., and numerous other trains.

Also arriving from overnight runs are the Central Vermont's *Montrealer* from Washington, D. C., and the Rutland's *Mount Royal* from New York City.

Early morning departures include a pool day train to Toronto, the *La Salle*, the Central Vermont's *Ambassador* to New York and the Rutland's *Green Mountain Flyer* to the same city, as well as many more of varying interest and importance.

Evening arrivals and departures are for the most part counterparts of the morning trains.

An interesting daily departure occurs at noon when the *Maritime Express* leaves for Halifax, N. S. This is always a heavy train with a large consist of sleepers, but what appeals to the author is to see the train pull out while the city's noon-hour whistles and bells are sounding simultaneously.

The fascination of the steam locomotive is missing from Central Terminal. Trains arriving in Montreal from the west change over to electric locomotives at the Turcot Yards of the Canadian National, while those coming from the south and southeast change over to electric power at Victoria Bridge. Nearly all heavy passenger trains into the city, before the changeover to electric power, are hauled by 6100- or 6200-class 4-8-4's, with the exception of the *Continental Limited*, which generally employs a 4-8-2 in the 6000 class.

Other passenger power provided by the Canadian National is of varied appearance and makeup, although considerably standardized in recent years. The majority of its Pacifics, Consolidations, Moguls and Ten-Wheelers were acquired from the Grand Trunk Pacific, Canadian Northern and the Intercolonial, which roads were combined shortly following the last war to form the present government-owned and -operated Canadian National Railways system. Added more recently are heavy Pacifics, Mountains and the well-known dual-purpose 4-8-4's.

Occasionally a locomotive in passenger service from the Grand Trunk, the CN's line in the United States to Portland, Me., will put in an appearance in Montreal, but seldom does power from the portion of the Grand Trunk Western operating from Port Huron, Mich., to Chicago, Ill., get as far as Montreal. Heavy 2-8-2's in freight service on the Portland (Me.) run of the Grand Trunk are common visitors to the city's freight terminals, however.

The longest locomotive run in eastern Canada is the 841-mile stretch between Montreal and Halifax, and the 4-8-4's cover this distance day in and day out hauling 18- to 20-car trains at speeds up to 85 miles per hour. The first 4-8-4's were built for the road by the Canadian Locomotive Works in 1927. A lot of these locomotives were ordered by the Canadian National in the intervening years, and only recently a new batch was delivered in a series starting with 6200, built by the Montreal Locomotive Works.

Below, the Ambassador, crack daylight train between Montreal, Boston and New York, hauled by Central Vermont light Pacific 231 near Montreal. Opposite page: Canadian National Consolidation 2596 leaves the roundhouse at Turcot Yards.

Canadian National

The site of the new Central Station is the old Canadian Northern station built in 1918 and located at the southern end of the tunnel bored directly under the mountain in the same year. The Canadian Northern's first Montreal station was on St. Catherine Street, East, now the present CN's Moreau Street Station, but it was soon discarded because the location was very inconvenient. Because, by this time, other competing railroads had grabbed the best entrances to the central portion of the city, the Canadian Northern undertook an ambitious scheme of tunneling directly under Mount Royal.

The tunnel extends for three miles and is today the longest tunnel on the Canadian National system. It was bored through solid rock that used to be a volcano, and the whole undertaking was quite a marvelous engineering achievement. The tunnel, which is double-track and electrified, was begun at both ends and met in the middle to exact measurement. The first rock ballast used by the Canadian Pacific on lines radiating from Montreal was obtained from the Mount Royal Tunnel in 1918.

Until recently, the terminal had a northern outlet only and trains operated to the Laurentian Mountains and also provided convenient commuters' service to and from the Town of Mount Royal and Cartierville. Electrification extends to the north for seven-odd miles, at which point steam locomotives take over for the run northward. All steam locomotives are serviced and housed in the CN's Turcot Yards, whose modern facilities include the world's largest turntable.

With the opening of the new terminal in July, 1943, a southern approach was provided, bridging all important city streets, and trains for the Maritimes, Toronto, Ottawa, etc., use this new trackage.

The Canadian Pacific's Place Viger "East End" Terminal provides passenger, freight and coach-yard facilities in the eastern section of Montreal. Regularly scheduled trains for Quebec City to the east and the Laurentians to the north leave from Place Viger. In this neighborhood, most of the CP's dock switching and interchange with the National Harbour Board Railroad is carried out.

Place Viger, erected in 1898, is located at Dalhousie Square, which served as the first Montreal terminal for the Canadian Pacific in 1892. In 1912 the yards and buildings were enlarged and the buildings assumed their present appearance. For some time the Place Viger Hotel was operated in conjunction with the terminal, but growth of the city westward proved the downfall of this venture and the magnificent castle-like stone structure was abandoned. Recently, due to the war, it has come into its own again for the housing of members of the armed services.

Canadian National.

An almost complete circle of the mountain and the city is made by tracks of the Canadian Pacific. Circumference of the circle, which is broken by the gap between Windsor Station and Place Viger, measures about 18 miles. All types of thriving Montreal industries are served by numerous sidings branching from this encirclement of the city.

Two daily trains in each direction are operated between Place Viger and Quebec City. Interesting and rather unusual lightweight semi-streamlined locomotives and cars are used in this service. The locomotives, five of which were built seven years ago and numbered 3000 to 3004, are 4-4-4 type. They weigh around 135 tons and are very easy on the roadbed and capable of fast acceleration and high speeds. However, they are suited for loads of no more than 350 tons under ordinary operating conditions.

Important trains operate from the Moreau Street Station of the Canadian National to the Lake St. John district, famous aluminum center and location of the famous Shipsaw development. Due to heavy freight service to this district, passenger trains have been somewhat curtailed.

The Delaware & Hudson operates mainly between Albany, N. Y., and Montreal, a distance of some 230 miles. After crossing the international border at Rouses Point, N. Y., it proceeds for about 40 miles through the Province of Quebec over what is known as the Napierville Junction Railway. It joins the main line of the Canadian Pacific at Delson, Que., and has trackage rights from there on into Windsor Station. Freights cut off before reaching Montreal West and head north around behind the mountain to the Canadian Pacific Outremont Yards.

The first D&H train entered Montreal in 1875 via the Grand Trunk into Bonaventure Station. Several years later this arrangement was altered to the present agreement with the Canadian Pacific.

The D&H, in conjunction with the New York Central at Albany, provides one of the most popular passenger routes between Montreal and

New York. Six daily trains are operated between the two cities: one day train in each direction known as the *Laurentian,* and two night trains in each direction, one an all-Pullman train known as the *Montreal Limited* and the other known as No. 7 and No. 8, carrying both Pullmans and coaches.

Most railfans are familiar with the modern D&H day coaches and diners provided several years ago for the *Laurentian.* These cars, painted on the outside a light green with a wide cream band, present a striking appearance and provide a maximum of riding comfort. They have proved extremely popular on this run.

Locomotives for these trains are 4-6-2's in the 600 class. Some have huge smoke deflectors of the design which has found favor in Europe and more recently with the Canadian National, Canadian Pacific and the Boston & Maine. Most of them carry a high sand dome and their boilers are as clean as a whistle. Once in a while, if traffic is light, a Ten-Wheeler somewhat similar in design to the 600's is used.

Freight power is of the 2-8-0 type. The Delaware & Hudson offers a highly developed freight service and it is a source of disappointment to me that the company's new 4-6-6-4's do not operate into Montreal, but neither traffic conditions nor terrain warrant such heavy power.

The Rutland, one of the less pretentious roads providing connections between New York, Boston and Montreal, ranks high in my affections. Operating over the Canadian National from Rouses Point, N. Y., into Central Terminal, it runs one day train, the *Green Mountain Flyer,* and one night train known as the *Mount Royal,* in each direction.

The *Flyer* carries through reclining-seat coaches to New York and Boston in conjunction with the New York Central and the Boston & Maine. It gives a scenic daylight journey through the heart of the Green Mountains of Vermont and along the shores and across the islands of Lake Champlain. The night train carries through sleepers for New York and Boston.

One of the most handsome and graceful series of locomotives to be seen anywhere powers the *Flyer:* little Ten-Wheelers built by Alco in 1912. The usual consist is five or six coaches, and the locomotives are just suited to the load. The night trains are powered by fairly modern Pacifics of very neat appearance, smacking strongly of New York Central outlines. They were built by Alco in 1929. Locomotives are taken to the Canadian National's Turcot Yards for servicing while in Montreal. Rutland freight service is entirely on an interchange basis with the CN at Rouses Point, and Rutland freight locomotives do not enter Canada.

The Central Vermont, owned and operated by the Canadian National, provides Montreal with direct service to Boston, New York, Philadelphia and Washington, working in conjunction with the Boston & Maine, the New Haven and the Pennsylvania. It operates mainly between Montreal, St. Albans, Vt., and White River Junction, Vt. Head offices and main shops are located at St. Albans.

Physical property of the Central Vermont terminates at St. Johns, Que., and CV trains operate from there on into Montreal with running rights over the Canadian National, entering Montreal via the Victoria Bridge.

A day and night train are provided daily in each direction. The day train, known in both directions as the *Ambassador,* carries equipment between Boston, New York and Montreal. Depending upon density of traffic, motive power is either a 4-6-0 or a 4-6-2.

The night train is much the more famous of the two. Northbound it is known as the *Montrealer* and southbound as the *Washingtonian.* Through Pullmans are carried between Montreal, Boston, New York, Philadelphia and Washington. Since the outbreak of the war, with close collaboration between Canada and Washington, importance of this train has increased considerably. It is now carrying exceedingly heavy traffic.

Motive power is provided between Montreal and White River Junction by the Central Vermont's 4-8-2's built by Alco in 1927 and numbered 600 to 603. They present a neat appearance, and location of the sand dome gives the illusion of an extra-long boiler as in the case of some locomotives of the Burlington Route.

Central Vermont freights operate into Montreal via the Victoria Bridge and terminate in the Turcot Yards of the Canadian National. Power is generally provided by 2-8-0's or superpower 2-10-4's of the 700 series, built by Alco in 1928.

All servicing of freight and passenger locomotives is done in the Turcot Yards. Passenger power does not get coal in Montreal, but is serviced both southbound and northbound at St. Albans, Vt.

The Adirondack Division of the New York Central operates between Montreal and Utica and through service is provided to Grand Central Terminal. The 70-odd miles of line between Montreal and Malone, N. Y., are designated as the St. Lawrence and Adirondack Branch of the Adirondack Division. This stretch of track first fell into control of the New York Central in 1916.

The main line of the New York Central joins the Canadian Pacific at Adirondack Junction, nine miles from Windsor Station. The New York Central leases 13 miles of Canadian National trackage between Valleyfield and Meauharnois, Que. All passenger power is provided by light

Canadian Pacific Train No. 8, the Dominion, gathers speed at Montreal West as it approaches the end of its run with a load of Pullmans from Vancouver, Calgary, Winnipeg and Sudbury.

Canadian Pacific.

4-6-2's in the 4400 and 4500 class.

New York Central freight service uses CP's tracks for 5.5 miles around the northern end of the city into the Outremont Yards.

The city of Montreal operates about 70 miles of track known as the National Harbour Board Railway. Wharf trackage of all railroads entering Montreal runs over this track. Connections exist at both ends with the Canadian Pacific and Canadian National, and all switchings is done by NHB crews and locomotives. All power consists of 0-6-0 switchers, constructed for the most part along lines similar to 0-6-0's of the Canadian National. Complete roundhouse facilities are maintained. During winter, when severe weather and heavy traffic taxes facilities of the Canadian National, several National Harbour Board locomotives are loaned to the Canadian National to alleviate the tight situation.

It has been remarked that layout of this harbor line has proved so efficient that it has served as a model for harbor railroads in San Francisco, New Orleans, and other large centers.

Initial service of the Montreal & Southern Counties Railroad, suburban electric line owned and operated by the Canadian National and connecting Montreal with Granby, Que., was started in 1909. Its terminal is located on Grey Nuns Street near the docks and runs across the Victoria Bridge. The line divides at St. Lambert. One section follows the river to the east and connects with Langueuil. The other section proceeds to the south to Marieville, which forms a terminal for about half of the trains from either Montreal or Granby. After leaving Marieville, the line crosses the Richelieu River and finally reaches Granby, 47 miles from Montreal.

Standard electric cars are operated with pole-trolley collection. Some have been modernized in recent years and now rank with the best electric equipment on other lines of comparable size. Bucket seats were installed, as well as leather chairs in the comfortable smoking sections. Fast freight service is maintained every weekday in both directions between Montreal, Granby and intermediate stations.

Boston & Maine standard Pacifics, built by Alco, enter Windsor Station on the *Redwing*, Boston - Montreal night train, operating over Canadian Pacific tracks through Sherbrooke, Que., and crossing the international border at Richford, Vt. The corresponding day train over the same route employs Canadian Pacific locomotives out of Windsor Station, usually a light Pacific in the 2200 class. This train is known as the *Alouette*.

A tremendous amount of freight traffic is handled annually by railroads in Montreal. Classification is done at the city's better-known yards, including the CP's Outremont and Hochelaga yards and the CN'S Turcot and Point St. Charles yards. Work is done by a large assortment of locomotives including 0-6-0's, 0-8-0's and some 0-10-0's as well as a flock of 2-8-0's and a few 2-10-0's operated by the Canadian Pacific.

Standard freight power is the 2-8-2 and the 2-8-0, although heavy and fast freight on the Canadian National is largely handled by the 6100-series 4-8-4's. The Canadian Pacific in recent years has taken to assigning heavy Pacifics and the 2800-series Hudsons to fast freights operating out of Montreal.

This coverage of the railroads in the Montreal area has drawn a picture of normal conditions. It is obvious that, with pressure of war, normal conditions are a thing of the past and that many extra moves have added to the traffic while many locomotive assignments have been suddenly changed. But whether in war or peace, Montreal will continue to be an important railroad center.

UP's Portland Rose some years ago in the magnificently green gorge of the Columbia.

A. J. Baker, Portland, Ore.

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Up the Columbia on the SP&S

BY VICTOR H. WHITE

From Astoria on the Pacific, SP&S follows the Hudson of the West for more than 300 miles

SIXTY-FOUR years after Lewis and Clark crossed the continent in 1805, the first transcontinental railroad was completed by the driving of a golden spike at Promontory, Utah, on May 10, 1869. The Central Pacific from the West Coast had finally joined the Overland Route built by Union Pacific. The first great date in the development of Western railroad transportation had been indelibly written into history. Within a few months regular trains were crossing the country.

Soon thereafter the Union Pacific sought to tap the fertile promised land of the great Northwest. Its glistening rails literally followed the footsteps of the two intrepid explorers through the V-shaped gap cut in the Cascades by the mighty Columbia River. A railroad had reached Portland, but it was still 118 miles from the sea. Another half century was to pass before the Spokane, Portland & Seattle was constructed.

Jointly built, owned and operated by Great Northern and Northern Pacific, the SP&S went on to the sea. It also crossed to the north bank of the Columbia at Vancouver, Wash., and followed up the river to the NP main line at Pasco. Passengers and freight from western Oregon were thus carried to and from the main lines of both northern transcontinentals via Spokane.

Suppose we board the SP&S, at Seaside, Ore., at 2:15 p. m. for the trip to Portland. From our window, before the cars begin to move, we can still catch a glimpse of a 25-mile stretch of smooth, sandy ocean beach. We can imagine Lewis and Clark standing almost on this same spot at their journey's end. What awe they must have felt when their friendly Indian guides pointed silently out over the limitless expanse of the fabled Great Water! The two explorers first saw the Pacific here 139 years ago.

We might stand on that same beach a few minutes before boarding our train and look far out past Port Adams to the distant Washington coast, across eternally shifting sands, across those wide and treacherous bars at the Columbia's mouth known as the "Graveyard of Ships." And in spite of our natural thrill at the click of rails, we would leave the Pacific Ocean with a pang of regret.

Broken masts and scattered wreckage of long-dead ships rise from the sucking sands. There are stories of lost cargoes and lost lives, the total of which no man may count. There are tales of the heroism

Northern Pacific.

Spokane, Portland & Seattle train No. 4 eastbound up the Columbia River near Cascades. Leaving Portland at 9 a. m., this day train to Spokane offers an especially fine panorama of the Columbia gorge.

of the coast guard over there on the Washington side, and the mystery of the unconquerable ocean's vast strength. These elements all pull at something within us, perhaps at our spirit of adventure; or maybe it is the appeal of history's romance.

But the engineer is opening the throttle now. We move.

It takes 55 minutes to cut across the triangle formed by ocean, river and railroad and reach Astoria. Here we are truly ready to join the stout-hearted salmon in his tireless upstream fight. We see the nets of fishermen spread in the river's estuary. We are at the first sheltered ocean-going port inside the treacherous sands where a sailorman may arrive after battling a hard sou'wester across the bar and say with a sigh of relief, "I am safely home from the sea."

We leave this oldest of all American West Coast cities to journey up the south bank away from Astoria's port facilities, her sawmills and her fish canneries.

In less than an hour we pass beneath Clatsop Crest. Above us the famous Lower Columbia River Highway climbs to a rocky eminence. One may look across the river to the Washington side and see a forested land of unbelievable wealth. Cut and still to be cut, enough timber has grown within sight of the Columbia's north bank to more than replace every wooden structure ever raised in all vast Manhattan. Oregon and Washington still possess the great bulk of the nation's uncut softwood timber reserve.

But we hurry on.

At 5:17 p.m., we slow for the station at Ranier. We see the first bridge across the Columbia, the highest toll bridge over a navigable waterway in the world. At the Washington end lies Longview, a model city of more than 10,000 population. In the early 1920's Longview was planned and built in its clean, attractive entirety by the Long Bell Lumber Company upon level logged-over land where practically not a structure of any kind had stood before. We see the towering yellow stacks of the great Long Bell Mill. A huge pulp-paper plant and the Weyerhauser Mill loom up beside it. There are ocean-going vessels, booming freight aboard at its river piers.

Again we are off. Another half hour brings us to St. Helens. We catch sight of the beautiful mountain of the same name, high in the Washington Cascades, bathed in the warm pink-red of a setting sun. We are scarcely above sea level and yet, just outside our window it seems, a perpetually snow-capped volcanic peak towers just short of 10,000 feet into the red cloud-flecked evening sky.

Another 28 miles . . . Portland. We might spend a day, a week or a month here, viewing scenic wonders too numerous to be detailed. But they bear too little upon railroad history to detain us now. We pause only overnight in order to enjoy the daylight scenery from the morning SP&S train which leaves at 9 to connect with Northern Pacific's No. 4 at Pasco at 4:35 p.m. For only 50 cents in addition to a coach ticket, we can have a comfortable seat in the reserved-seat lounge car at the rear of the train.

Reaching the Washington side of the river, we stop immediately at Vancouver. Founded by the Hudson's Bay Company in 1825, the city became the center of all the company's trading activities for western Canada and all the territory which was to become Washington, Oregon, Idaho and part of Montana. For years it was the political and commercial heart of all the Northwest.

Only 25 miles farther east we rumble into a tunnel nearly half a mile long. It bores through the great solid-granite mass known as Cape Horn which drops sheer into the waters of the river—one huge, unbroken rock, the bulk of which is said to be second only to England's mighty Gibraltar. We are now piercing the very backbone of the Cascades alongside the eternally swishing, pounding waters which must have taken untold centuries to wear the river's

Optional routes

For the benefit of those who must travel but who cannot get accommodations by their usual route, TRAINS each month will print a brief listing and survey of available routes between larger cities.

Houston and Dallas-Fort Worth:

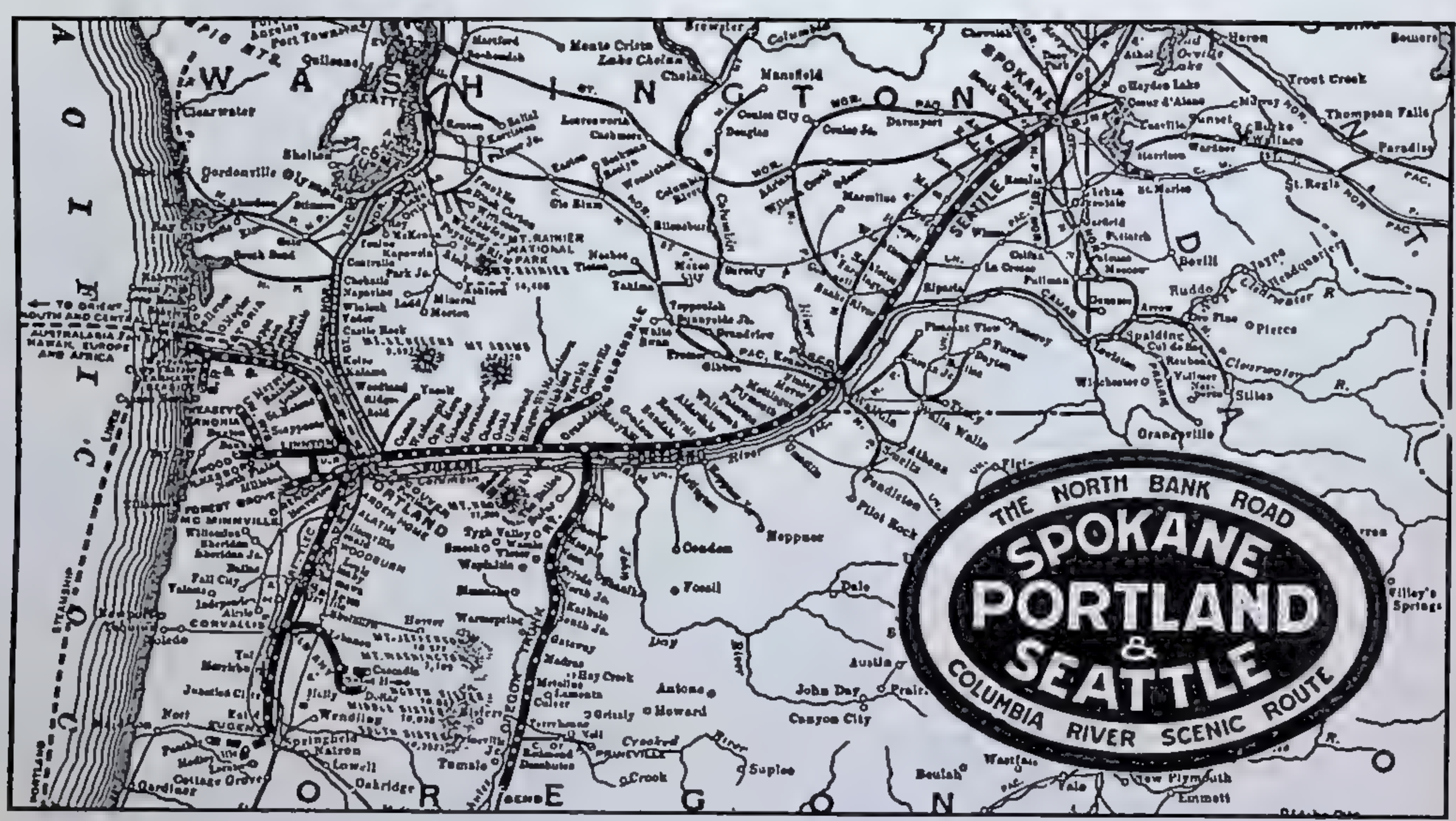
Burlington-Rock Island: 2 streamliners each way, 1 day local. Streamlined trains to both Dallas and Fort Worth; local to Dallas only.

Missouri-Kansas-Texas: 1 day train, 1 overnight train. Both Dallas and Fort Worth.

Missouri Pacific: 1 overnight train. Fort Worth only.

Santa Fe: 1 overnight train, 1 day local. Both Dallas and Fort Worth.

Southern Pacific: 2 streamliners each way, 1 overnight train. Overnight trains operate to and from both Dallas and Fort Worth, but the streamliners operate only out of Dallas.



course. And here, in the very heart of giant mountains, the throbbing pulse of the ocean still is felt. The backwash from the sea's tides still causes the waters of the river to rise and fall, twice in and twice out each day, although we are 140 rail miles from the ocean shore.

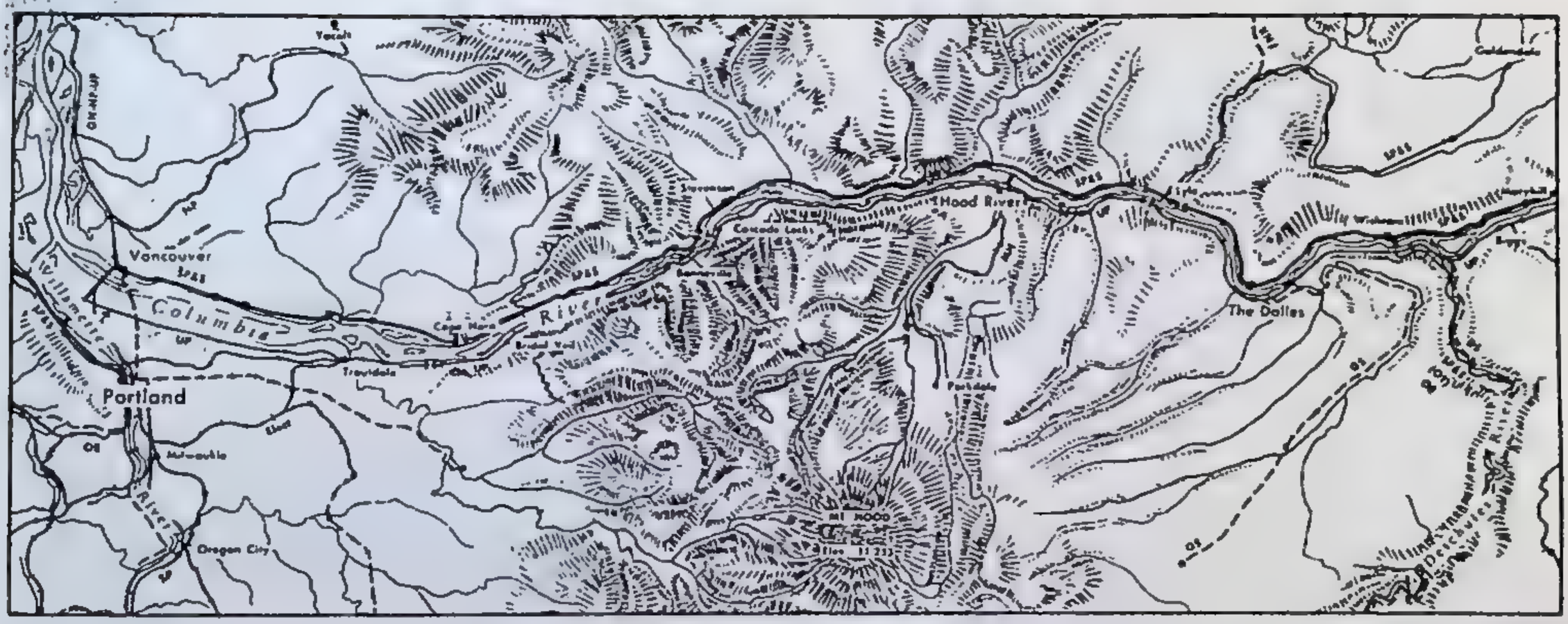
Soon we are directly across the river from the famed Vista House on the Upper Columbia River Highway in Oregon. From it, on a clear day, there is a view that may indeed make man realize how infinitely small he is. To south and east we see that beauty of beauties, majestic Mount Hood. Mount St. Helens, which we saw yesterday, is just north of us now. These are only two of several volcanic peaks of the Cascades which are forever snow- and glacier-covered and perpetually beautiful. They include Mounts Adams, Rainier and Baker in Washington and, to the south in Oregon, the Three Sisters. Farther south in California rise Shasta and Lassen. Lassen is still alive. And there still are live-steam vents to warm the hardy mountaineer who has the heart and lungs to make the more-than-14,000-foot climb to the top of Mount Rainier in Washington. Below and all around Rainier's steam vents, which hiss gently into the chill air, lies the greatest glacier system of the United States, all inside of Rainier National Park.

Perhaps the most interesting of all these beautiful peaks is the extinct volcano which collapsed into its own crater and formed a sky-reflecting lake a mile above the sea, unlike any other scenic wonder anywhere. For in this way, scientists tell us, Crater Lake in Oregon, far to the south of us now, was created.

All these snow-capped eminences are set, like broken and twisted vertebrae, in the geological skeleton of which the Cascades are the backbone. And directly through that backbone the Columbia River has cut its way.

Fifty miles out of Portland we come to North Bonneville. We sit in the smoker and, likely as not, we begin to discuss power. Bonneville suggests Grand Coulee. It reminds us that the Columbia, before the glacier age changed its course, tumbled over a granite precipice in a waterfall 10 times as mighty as Niagara. The falls are still there, 200 miles northeast of where we now follow the river. They are dry now except for the quiet lake that lies beneath them. But their tall majesty compares favorably with the greatest man-made structure in all the world, Coulee Dam, another 50 miles northward in the river's present course. Here to westward, "where rolls the Mighty Oregon," man has found unequalled electric power, the same power which cleft the mountains asunder. Man puts it into harness.

But that is another story, as is the origin of the Indian name, Oregon, by which the river was known in fable before the actual discovery



Linn H. Westcott.

From Crown Point (a well-known viewing-stop on the highway opposite Cape Horn) east to The Dalles, the Columbia River is shadowed by great palisades over which waterfalls float downward in beautiful ribbons. As one moves eastward the lush, moist foliage gives way to barren rock cliffs and a desert-like climate.

of its mouth in 1792 by Captain Grey, who then gave it the name of his ship, Columbia. Let us get back on our train.

We are immediately above the great Bonneville project now. There were rapids here before the dam was built, and our government built a ship canal around them a quarter of a century ago. But today the development of electric power here is more important than the small volume of shipping which came this far upstream.

As we go on up the river, pausing briefly at White Salmon, Lyle and Wishram, the Columbia River Highway still parallels the Union Pacific main line on the other side. Opposite White Salmon lies Hood River, a word synonymous the world over with fine apples. We obtain an even more beautiful view of Mount Hood, which is directly south of us now. We are just across from the natural East-West highway over which Lewis and Clark first charted the course for the westward tide of empire. We note its unexcelled scenery, still unspoiled.

There is Oneonta Gorge, a few miles below Bonneville. You walk into it from the Columbia River Highway over a pathway of small rounded stones which form a tiny creek bed. Above, the moist granite walls seem to weave and wind in a vertical grandeur interspersed with clinging green vines and countless varieties of ferns and moss. On bright days sunbeams play tag with shadows, trying to reach down to the deep crevice. But mostly they succeed only in creating veils of multi-colored mist. For, yes, as the Indians told in fable long before white man saw the stream, "there are many wonders where rolls the Mighty Oregon."

Many of those wonders have been missed here. We have not mentioned the picturesque sectional tunnels through solid rock formations along the Columbia River Highway, near the Horse Heaven country where great herds of wild horses roamed free and untamed even after the turn of the century. Those horses were the offspring of steeds which escaped from early Spanish explorers in Mexico and along our Gulf Coast. Even the Indians had no horses until these had worked their way northward, been recaptured and broken. So sturdy were these beasts that thousands of them bred and flourished on the natural pasture land our train passes through. Southward, half across Oregon, is another wild-horse land where now are to be found the only wild antelopes still existing in the United States.

Our train hurries on. We enter desert. Sagebrush appears. Sand. Here is a country so barren that it is inhabited only by myriads of jackrabbits and a species of rattlesnake said to be the smallest of any found in this country. But these little rattlers carry as deadly a poison as any known. The *Don't Tread on Me* motto is well known to them.

We leave the Columbia now. Its waters curve northward in a huge S. The lower half is the famous Big Bend wheat section; the upper half irrigates the endless orchards from which Yakima and Wenatchee apples come. We arrive at the Northern Pacific's important division point, Pasca, and are on the main line.

We may say, "Yes, the railroads followed

Lewis and Clark. Ships came around the Horn, then through the canal. Bonneville has been built. Further upstream is Grand Coulee. But Nature still flaunts her wild power and beauty."

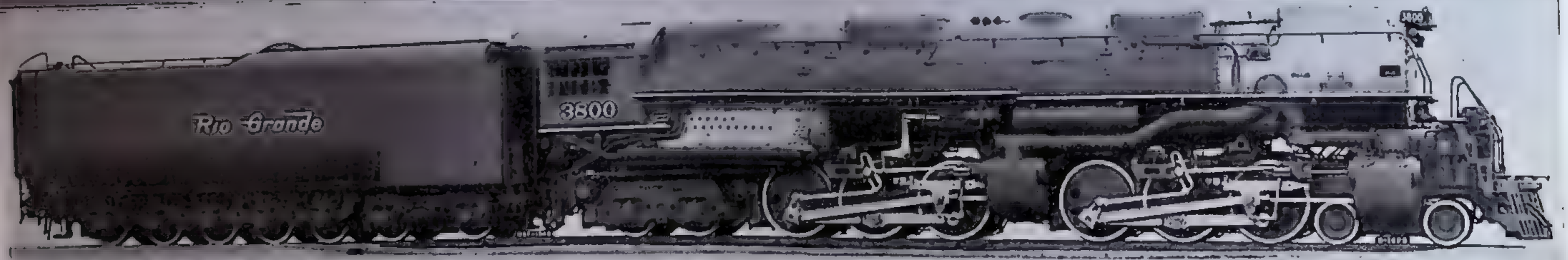
Along the course we have come, the mighty King and Chinook salmon still battle the Columbia's white water. They are unmindful of the roar of machines; they are unheeding of the rumble of our steel coaches. Many of them scorn the man-made fish ladders at Bonneville and dash themselves to death in the boiling water below the dam. They know only their instincts which keep urging them upstream.

On the main line now, the steel wheels hum beneath us, always onward, forward, to new scenes and new wonders. The railroads are still going on. They carried supplies to Bonneville. They carried the big turbines to Coulee. It was the railroads which really harnessed the river.

Northern Pacific.

A half-mile tunnel pierces the granite bulk of Cape Horn (above) where the Columbia cuts through the backbone of the Cascades. Below is a typical view of the line.

Northern Pacific.



Almost-Identical Twins

These two Challenger-type 4-6-6-4 articulated locomotives look like twins, and they are—almost. The American Locomotive Company built 25 for the Union Pacific, similar to earlier engines built for the road, and then six more were built as a part of the same order but reassigned by the War Production Board and leased to the Rio Grande by the Defense Plant Corporation, which owns them.

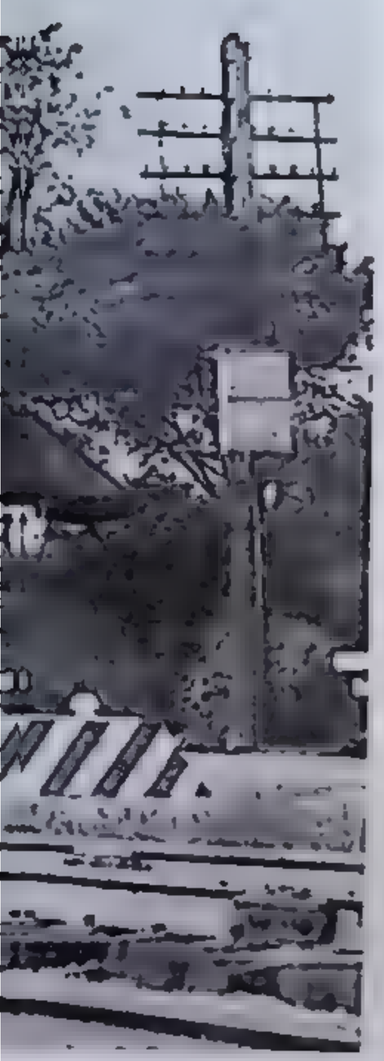
Inspection of the specifications reveals, however, that the Rio Grande engines are 3500 pounds lighter, all other dimensions and weights being identical. These are still almost-identical twins, for the difference in weight is not what it seems. It is merely more water in the Union Pacific boiler when the completed engines were weighed. The only real difference is that the Grande engines have four water gauge cocks, the UP engines three. When engines are weighed loaded to secure the working weights, they are weighed with the water level at the second lowest gauge cock, so it is easy to see how the 3500 pounds difference occurred with engines whose only difference is in the number of gauge cocks.

Specifications:

	UP	D&RGW
Road classification	307-MB	L-97
Road numbers	3975-3999	3800-3805
Tractive effort, lbs.	97,350	97,350
Cylinder diameter and stroke, in.	21 x 32	21 x 32
Driver diameter, in.	69	69
Weight on leading trucks, lbs.	102,000	101,500
Weight on drivers, lbs.	407,500	405,500
Weight on trailing truck, lbs.	124,000	123,000
Weight of engine, lbs.	633,500	630,000
Wheelbase, engine and tender	106′-8″	106′-8″
Weight of tender, lbs.	348,000	348,000
Steam pressure, lbs.	280	280
Grate area, sq. ft.	132.2	132.2
Evaporative heating surface, sq. ft.	4795	4795
Superheating surface, sq. ft.	2162	2162
Tender capacity: Gallons of water	25,000	25,000
Tons of coal	28	28

A Day at Geneva, Ill.

Photo story by Henry J. McCord

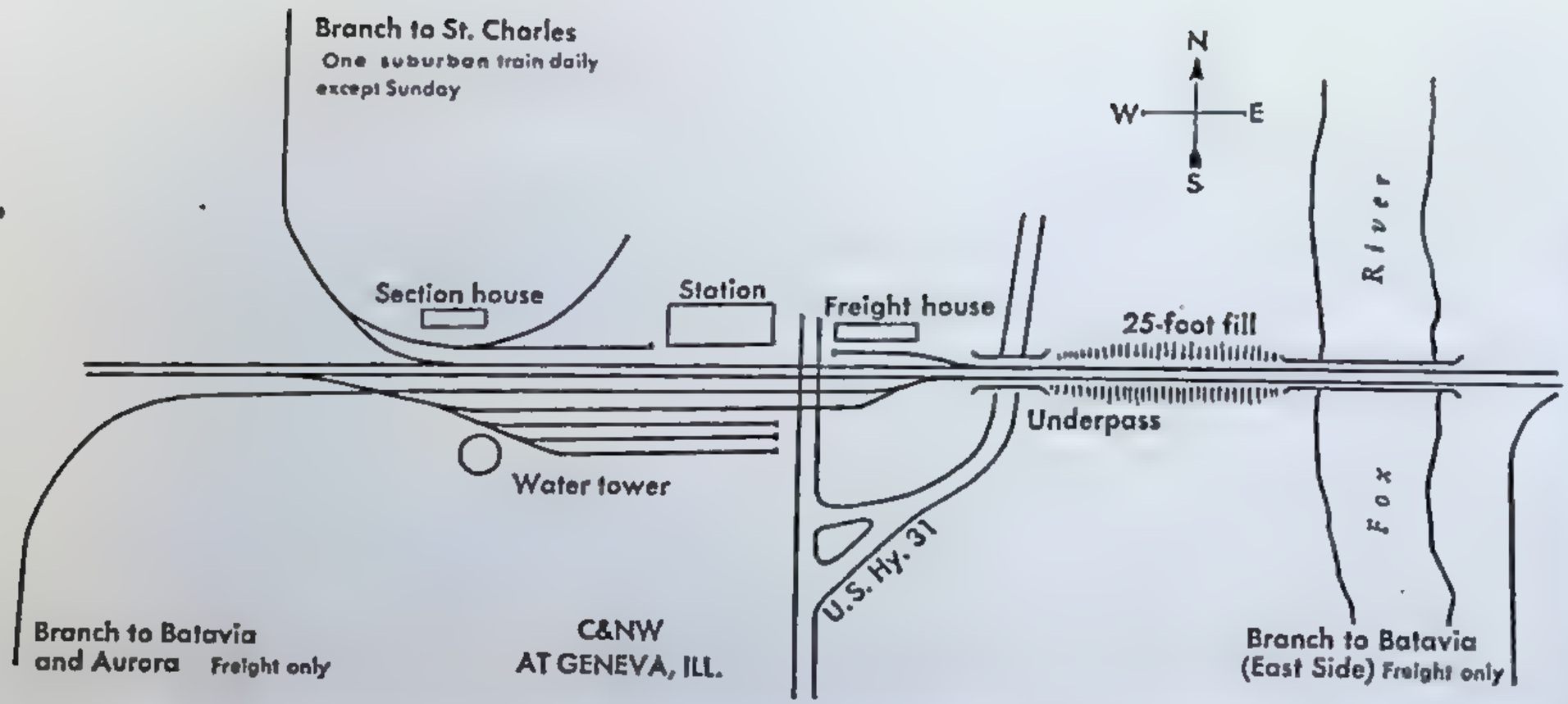


GENEVA, 35 miles west of Chicago on the Chicago & North Western's Galena Division main line to Omaha, is a good place to watch trains. It is also a light manufacturing city of about 4000 population. Most of the Chicago commutation trains terminate five miles to the east at West Chicago, but some Geneva residents commute and seven eastbound and nine westbound trains provide service.

Some 70 trains a day pound the rails through Geneva now, including 20 passenger and 14 freight westbound and 19 passenger and 17 freight eastbound. The best look at this traffic can be had between 6:15 and 10 in the morning, when the heavy movement of through trains is eastward, or between 5:30 and 9:30 p.m., when the peak movement goes west.

Midmorning may catch an eastbound freight, as at left, pulled by

one of the hefty Class H 4-8-4's. At 10:48 No. 21, the *Pacific Limited* (above) goes through carrying green flags for a following section, and not far behind Second 21 is a westbound freight, with another Class H on the head end. Operator A. H. Phillips busies himself at the phone OSing



(reporting to dispatcher) these trains as they pass.

From Geneva two branches diverge, one a freight-only single track down the Fox River to Aurora, and the other a two-mile northward spur to St. Charles over which one Chicago-bound suburban train runs in the morning and returns at night. The switch crew (above, top) handles not only the local industries and freight house but also cars for St. Charles. The express delivery men at Geneva (above, lower) really earn their salary, handling large loads of castings, radio tubes, electrical control apparatus, and so on.

One of the morning rush-hour trains into Chicago is the *San Francisco Challenger,* which makes a conditional stop at 8:28. That's it, No. 88, behind heavy Pacific No. 2901 in the large photo. Notice the green flags, practically standard equipment on most West Coast trains these last two years. As with most stations on the North Western in the Chicago area, the main

building at Geneva is on the inbound side of the tracks, so it provides most convenient waiting facilities for Chicago-bound passengers. The story is that the North Western, which operates most of its lines on the left-hand side of double track, might have changed to right-hand operation had it not been for the large investment in stations in the Chicago area.

It is just about noon when, on most days of the month, one of the streamliners from the coast slips through at a mile a minute on the home stretch into Chicago. The *City of Denver* has already gone through before 10 o'-clock. Comes evening and the westward trek is heralded by the Denver streamliner (left), this time hitting 70. Fifteen minutes behind, on all but every sixth day, comes either the *City of Portland, City of Los Angeles* or *City of San Francisco.*

By evening rush-hour time Express Agent Mills is busy recording the day's receipts and the section crew (which may have been clearing snow from stub switches at St. Charles, as at right) knocks off for the day. But the trains keep coming—a freight extra west, a double caboose hop, the *Overland Limited,* the *Challengers* for Los Angeles and San Francisco. On a busy railroad, day may begin and end but the show goes on forever.

Inspection Locomotives

Forty or fifty years ago no railroad was complete without one or more inspection locomotives. Generally, these inspection locomotives were rebuilt from engines too light for further road service. Most were of the 4-4-0 type. The engine below, Adirondack & St. Lawrence No. 99, is claimed to have been a former locomotive on the New York Elevated Railway. The Philadelphia & Reading had a fancy outfit (above) which it kept at Wayne Junction, where the photo was made. The 100, 4-4-2 type, was built new at the Reading shops in 1913.

Photos from collection of C. E. Fisher, 20 Wilde Dr., Waben 68, Mass.

Wendell H. Kinney, 2525 E. 49th St., Los Angeles 11, Calif.

Kowloon-Canton Express The Japanese have taken all but 743 miles of China's 12,036 prewar miles of railroad since the war began, and China has been able to build only 1001 miles of new line since. On one line, 737 tunnels totaling 6000 yards in length had to be constructed without concrete. The train above, photographed in 1920, is ready to leave Kowloon on the 123-mile Canton-Kowloon Railway.

NICKEL PLATE increases to 40

ITS FLEET OF LIMA 2-8-4s

To aid in handling its tremendous volume of traffic, the Nickel Plate Road has recently placed in service fifteen additional 2-8-4 freight locomotives built by the Lima Locomotive Works, Inc.

This makes a total of FORTY Lima Locomotives of this type now in use on the Nickel Plate, which are hauling heavier trains at higher speeds to meet wartime demands.

LIMA LOCOMOTIVE WORKS INCORPORATED

LIMA LOCOMOTIVE WORKS, INCORPORATED, LIMA, O.

From Baltimore to Harrisburg on the PRR

A photo story by William Moedinger Jr.

East and south from Harrisburg, Pa., and from the sprawling Enola freight classification yards on the opposite bank of the Susquehanna River, fans the Pennsylvania Railroad's heavily steeled network of electrified lines. To Philadelphia, New York, Baltimore, and Washington, graceful catenary stretches between silvered rows of steel supporting girders. Yet, amid this profusion of high tension and humming traction motors, one highly important section of main line remains unconverted and steam railroading is carried on in the finest traditions of the great, progressive Pennsylvania System.

The line is the 83-mile Harrisburg-Baltimore portion of the Northern Central Railway, operated under a 999-year lease by the Pennsy as a part of its Maryland Division. Except for 17 miles of water-level grade along the west bank of the Susquehanna River at the Harrisburg end, the entire line is a series of high-degree curves and stiff grades through the heart of the rolling farm country just east of the Allegheny Mountains From York Haven, where the line forsakes the water-level grade of the river, and from Baltimore, the grade is generally up, with the summi located just a few blocks north of the Mason and Dixon's Line. Save for local freights, onl passenger trains are operated over its four ribbons of 130-pound steel, which thread some o the most picturesque farming country in th

The Washington section of the Liberty Limited, opposite page, is really doubleheading, but the Consolidation helper completely hides the K-4 Pacific road engine. The photo on this page was obtained at the same location, Freeland, Md., simply by facing the opposite direction. The tandem K-4's are pulling the St. Louisan. Because of the curves and grades, average speed over this line is slower than over the Pittsburgh Division, which hurdles the Alleghenies.

nation. Passenger trains include not only several commuter trains into Baltimore and Harrisburg, as well as locals between the two cities, but every one of the Pennsy's named fleet of Washington-to-the-West mainliners, many of which fuse at Harrisburg with similarly destined trains from Philadelphia and New York. Actually, the line is several miles shorter than the alternate water-level electrified line, over which all through freights to and from the South are routed, but the unfavorable alignment and grades greatly overbalance this saving in miles. Making this route the more desirable for passenger traffic are the facts that the entire line is double track, in contrast to the 40-odd miles of single track on the alternate route (following the east bank of the Susquehanna River), and that the line serves highly industrialized York.

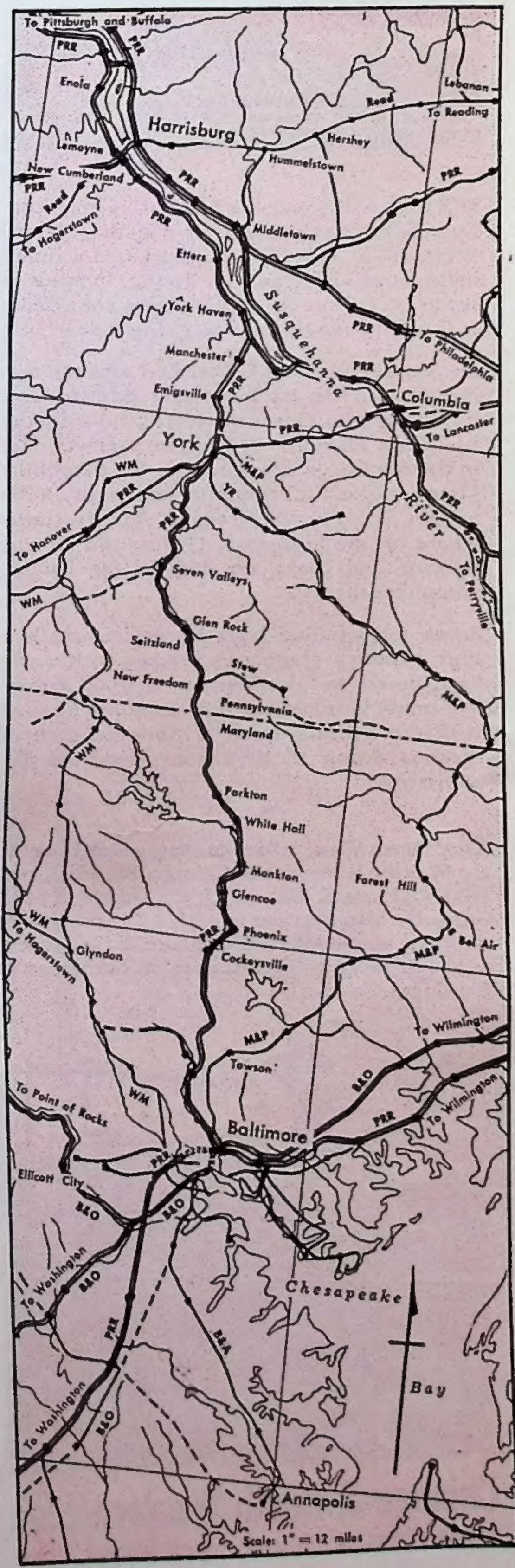
Southern end of the line is properly not at the big Pennsylvania Station in the North Side of Baltimore, but at the old Northern Central terminal nearer downtown. However, this old brick structure, now called Calvert Station, sees only five arrivals and departures daily, suburban trains to and from Parkton, 28 miles north. Other trains start from the newer station, and most are through makeups from Washington. They do not go through exactly as they arrive, however. The line to York leaves from the Washington-bound end of Pennsylvania Station,

and so the trains are usually run out of Washington with a reverse makeup, and in Baltimore the steam locomotive is hooked on the west end (toward Washington) while the electric is uncoupled from the other end.

Big shows are in the morning, when the fleet goes toward Washington, and in the evening, when it goes west. Between 6:15 and 10:30 a. m. 11 passenger trains go into Baltimore over the Northern Central line, three of them suburbans and the other eight named through trains such as the *Statesman,* the *American,* the *Liberty Limited,* the *Spirit of St. Louis* and the *Red Arrow.* In the afternoon and evening a similar lineup of nine trains leaves Baltimore northbound between 5:24 and 9:17.

York, two-thirds of the way from Baltimore to Harrisburg, is a junction city on the Pennsylvania. The branch line from Frederick to Lancaster, on the main Philadelphia route, crosses the Northern Central at York, and the old red brick station with its extra center platform is on a short stretch of line used by both the north-and-south main route and the east-and-west branch. A double-ended gas-electric car from Lancaster works in and out all day long, furnishing connection to mainline points east. With a population of 57,000, York is by far the largest intermediate city on the line. It is a commercial center for the surrounding country with its many neat, freshly painted farm buildings and green, rolling hills. Several hundred factories give York a manufacturing output of nearly 100 million dollars per year. While the Pennsy is the main route to the south, the Maryland & Pennsylvania and Western Maryland also connect York with Baltimore, the former with two local trains each way and the latter with freight service only.

The Pennsylvania Railroad via York is the shortest route between Baltimore and Harrisburg, but it is not straight by any means. The country is rough and the line must climb out of the Chesapeake Bay watershed and then descend into the Susquehanna Valley. Freight runs over a longer, but more level, line northeast from Baltimore to Perryville on the lower Susquehanna and then up the river valley to Harrisburg. The two locomotives, a Mikado and a Pacific, on the heavy St. Louisan at far left are on the last lap of the climb to the summit near New Freedom. The winding train above is almost at the summit, which is exactly under the overhead highway bridge on which the photographer is standing. Under the last car of the train is the Mason and Dixon's Line. View below is in opposite direction from same spot.



MEET Dave Noe

FATHER OF THE SEVEN FIGHTING NOES

● Rarely will you find a family like the Noes. Dad Dave, section laborer for the "North Western" in Valentine, Nebraska, is a quiet, industrious chap, and so young looking it seems incredible that he has nine sons, *seven of them wearing the uniform of Uncle Sam!*

28-year old Warrant Officer Leo tops the list. Next in line is 1st Lieutenant Edward, and following him Corporal James, now in the Aleutians. Then there's Paul, on overseas duty in the Air Corps. Francis, Aviation Machinist Mate 1st Class, follows him, and right on his heels is Sailor Hugh, Fireman 1st Class, somewhere on the high seas. 17-year old Albert, Seaman 2nd Class, on duty in the Pacific, completes the list.

Seven out of nine boys in service—that's a high batting average even for duty with Uncle Sam. Small wonder Dave is a proud father. We salute him and his stalwart sons. Imbued with the fighting spirit of America, each of them is doing all he can to speed the day of victory.

★ ★ ★ ★

The "North Western" service flag, which hangs in the Waiting Room of the Chicago Terminal, contains 4,375 stars. Not only is it a symbol of patriotism, but also provides us with 4,375 reasons for doing an all-out job for Uncle Sam. We in our way, as you in yours, will continue to do our utmost in Freedom's Cause.

Chicago & North Western Line

SERVING AMERICA IN WAR AND PEACE FOR ALMOST A CENTURY

The Trains Competition

MIDNIGHT, September 4, is the deadline for entries in the 1944 TRAINS Competition, in which $375 in prizes is offered for the best manuscripts on specific railroads. First prize is $150; second, $100; third, $75; fourth, $50. In addition, TRAINS will pay $25 each for other manuscripts deemed worthy of publication.

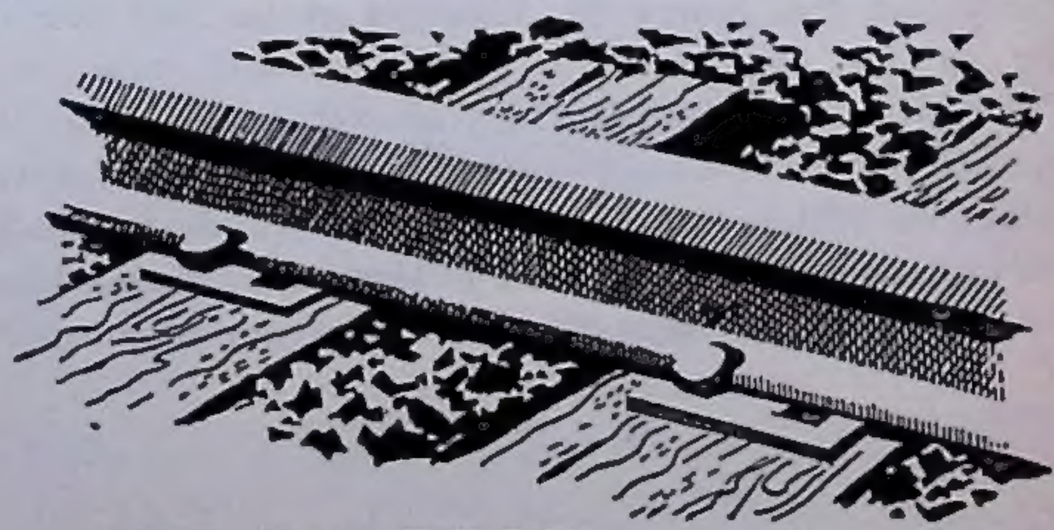
TRAINS has a double object in sponsoring this competition: first, to encourage new writers on railroad subjects; second, to stimulate interest in American railroads. Many of the more interesting articles which have appeared in TRAINS during the past year were the result of the first competition, held in 1943.

Rules of the competition were published in the March and June issues of TRAINS. Judges will be the editors of TRAINS and Samuel O. Dunn, editor of *Railway Age*.

Railroad Movies

The Association of American Railroads, Washington, D. C., has compiled a list of more than 200 motion pictures relating to railroads of the United States and Canada. It will be furnished free by the A. A. R. upon request.

NOT FORGETTING



THE ROADBED

The C&EI has long been noted as having one of the finest roadbeds in America. Its St. Louis Division—the famous Noiseless Route—heavily ballasted all the way, is so smooth and level that it has become known as "The Boulevard of Steel."

That fine roadbed has been a mighty big asset in helping the C&EI to handle its full share, and more, of America's tremendous war job—hauling tonnages and passenger totals far beyond anything in its history.

When the war ends and the new "rail-polishers" now on order are available, with their stepped-up speed and tractive power, the C&EI heavy-duty track will be fully ready to handle them.

The C&EI appreciates the interest of railfans here and abroad

C&EI

Chicago & Eastern Illinois Railroad

Correspondence

To date I have found little to cause more than a casual interest in North African railways. As you know, they are at present being operated by the United States with much American equipment. Lots of the old French equipment remains, however, and wheezes along belching forth steam at every pore, tooting the high-pitched whistle for all it's worth. So far it has been the trolleys or trams that have interested me most. Most of the equipment is as old as the hills and in the poorest condition, although one company I know of uses articulated units built just prior to the war.

Cpl. Frederick W. Diebert, U. S. Army.

The 11:15 *Olympian* wasn't at all crowded that Sunday evening and I got a seat all to myself, as did the young army lieutenant just in front of me. Right across the aisle were two very young mothers, both trying to quiet their almost-brand-new offspring, who were yelling their heads off. Being a confirmed eavesdropper, I learned this little group was bound for Seattle by coach and obviously on the proverbial shoe string. Suddenly the young lieutenant got up, rushed through the car and almost immediately was back with several bottles of milk. A porter followed him with what seemed to be a mountain of pillows. When we pulled into Milwaukee, where I had to get off, everyone was sleeping peacefully but me.

John Dee, 1106 Knapp, Milwaukee, Wis.

I'm making my first acquaintance with English railroads and must confess that I've lost a lot of my superior attitude concerning them. They still seem tiny and odd-looking to American eyes, but they do a whale of a job and in some instances in a better manner than the roads I'm accustomed to. Their roadbeds and alignment of rails are perfection, even to unimportant branch lines and the innumerable sidings which can be seen everywhere. Give me the U. S. every time, of course, but they do have something here.

D. S. Richter, U. S. Army.

Little known is the fact that the Santa Fe is one of the only two lines extending from the Pacific Coast to the Gulf of Mexico. Its line from Houston to San Francisco is shorter than that of its only rival, the Southern Pacific. Only one passenger train is operated each way daily over this route. Pullmans operate through between Houston and Oakland, but coach passengers have to change cars at Clovis, N. Mex.

Preston George, 612 N. Hightower, Altus, Okla.

In the article "NYC West Side Freight Line" [June TRAINS] you mention train No. 159 connecting at Harmon with a Grand Central train, but you fail to say that besides No. 159, two solid trains leave the West Side every day on a passenger schedule.

Alois Fischl, 87 Vermilyea Ave., New York 34, N. Y.

Edward Hungerford's "Man in the Tower" [April TRAINS] pays special tribute to designer John Player of the Brooks Locomotive Works. If he is responsible for Brooks designs since the 1890's, he created the most original, instantly recognizable locomotive designs the United States ever had. In the early 1900's there was also a distinctly "Rogers" type, a "Rhode Island" and a "Pittsburgh" type for some time, but the Brookses were the eye-getters. They were head and shoulders above the big tribe of clumsy Baldwin Vauclain compounds of the Milwaukee, an engine the men never seemed to like.

Helmut Kroening, 7008 St. Anthony Ave., St. Paul 4, Minn.

Speaking of Rationing

Don't mention paper around our office without a deep salaam. Paper is the one commodity we most haven't got. While the shop and storage basement are full of paper, we are practically fresh out—for paper is our principal raw material and we can have plenty and still be very—in fact, embarrassingly—short.

The government tells every publisher just how much paper he may use, and magazine quotas are based on 1942 consumption. In 1942 TRAINS was new and circulation grew fast during the year, so at year end we found ourselves with 50 per cent more circulation than the year average on which our paper quota is still based. From that the government subtracted the same percentage cut everyone else has taken.

That's why newsdealers are so often fresh out of TRAINS. And yet we've done a lot to get more copies out of our alloted tonnage and still give you a good money's worth. The thin cover gives us four additional inside pages. Thinner paper all through the magazine helps. And we get more words on a page because of typographical improvements.

But the newsdealers still take the worst of the situation. We have been forced to cut dealer sales by more than 6000 copies in the last year and a half, so if your friends can't buy TRAINS, please lend your copy and make it do extra duty.

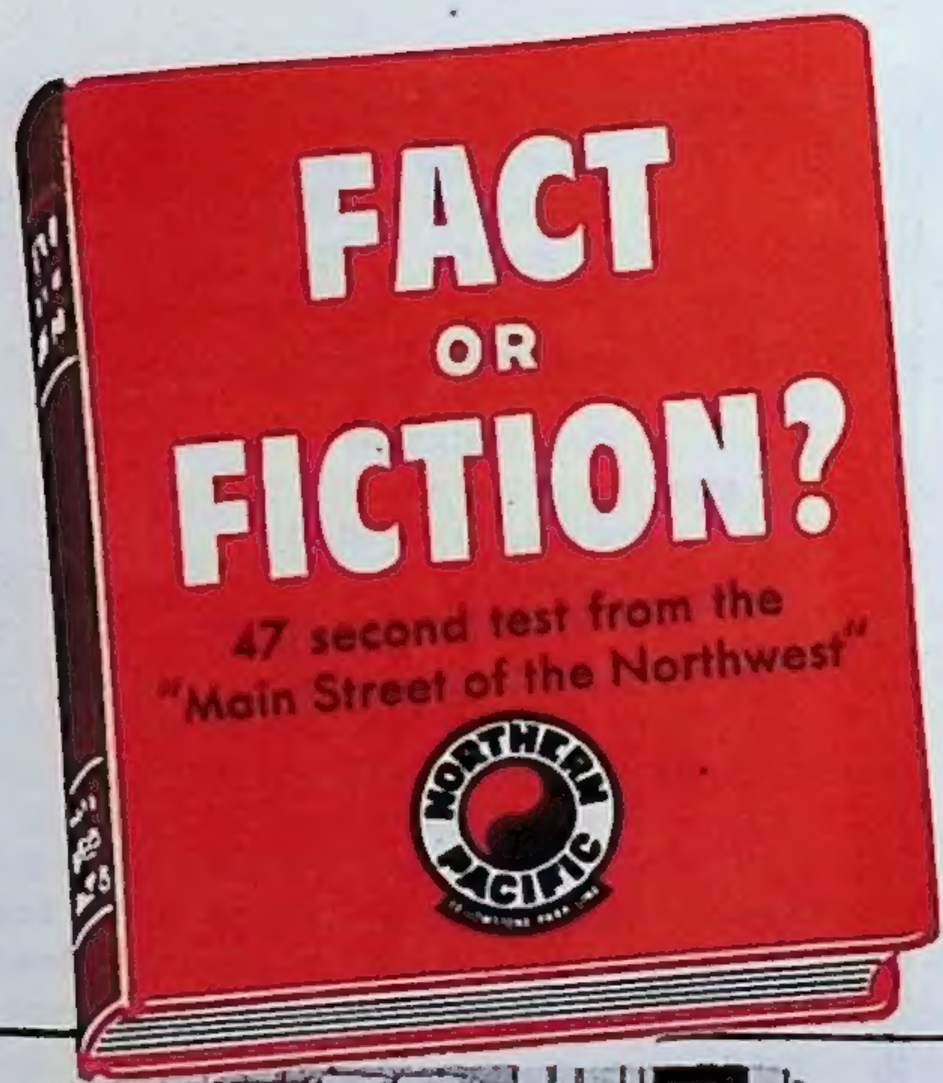
Comes late fall and winter and do we ever have a grand rush in our subscription department! Half of all subscription orders come in the four months from November to February. Usually we meet this rush by hiring extra clerks, but we can't do that this year. If your subscription expires in fall or winter (the expiration date is to the right of your address on the envelope), why not send the renewal now? You'll be sure of uninterrupted service, and you'll be helping us give better service to someone else as well.

For a complete story of the railroads of the "railroad wonderland" state, Colorado, send us $2 for the Colorado Album of Railroad Photos and the Colorado Railroad Map. The captions in the album and the notes on the back of the map tell the factual story, the pictures are completely representative and the map is the only complete Colorado railroad map ever published, showing all existing and abandoned lines as well as important projected lines. The whole incomparable story of Colorado railroads for only $2!

Complementary to this month's "Montreal's Railroads" is the "New Montreal Terminal" story which appeared in November 1943 Trains. Limited supplies of this and other back issues of interest are still available at 25 cents each.

Kalmbach Publishing Co.

1027 N. 7th St. Milwaukee 3, Wis.



Q. *Salmon canning industry is built on fish's homing instinct. Fact or fiction?*

A. Fact. Millions are trapped on return to birthplaces in Alaska, Washington, Oregon rivers; over $11,000,000 worth move annually via N. P.

Q. *Northern Pacific engines annually use enough water for 150,000,000 baths. Fact or fiction?*

A. Fact. Wells and tanks of the Northern Pacific Railway supply its locomotives with 4½ billion gallons of water a year.

Q. *Cattle, sheep and hogs are native American meat animals. Fact or fiction?*

A. Fiction. Columbus brought them. In 1943, packers shipped more than four hundred million pounds of meat via the Northern Pacific Railway.

Q. *The second largest U. S. Naval Training Station is on Pacific seaboard. Fact or fiction?*

A. Fiction. It is on Lake Pend Oreille in a mountain valley at Farragut, Idaho, five miles from the main line of the Northern Pacific.

Q. *Teddy Roosevelt tamed Western outlaws along "Main Street". Fact or fiction?*

A. Fact. He served as deputy sheriff at Medora, N. D. on the Northern Pacific Railway, known to shippers as "Main Street of the Northwest".

NORTHERN PACIFIC

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